

China's entry into the WTO:

A survey of the effects on Chinese export and income

Kathrine Leira



Master thesis for the
Master of Philosophy degree in Economics

UNIVERSITY OF OSLO
Department of economics

May 2010

China's entry into the WTO:

A survey on the effects on Chinese exports and income

© Kathrine Leira

2010

China's entry into the WTO: A survey on the effects on Chinese export and income

Kathrine Leira

<http://www.duo.uio.no/>

Trykk: Reprosentralen, Universitetet i Oslo

Preface

This thesis is written as a completion of the Master of Philosophy Degree in Economics at the University of Oslo.

I wish to thank my supervisor Karen Helene Ulltveit-Moe for raising important questions, providing helpful suggestions and feedback.

A special thanks to Elin Mortensen and Sigrid Wilter Eriksson for proof reading and helpful insights and comments.

All remaining inaccuracies and errors are mine alone.

University of Oslo, May 2010

Kathrine Leira

Summary

Since China opened up for foreign trade in the late 1970's it has become a major international trading partner. China is an export oriented economy with a high economic growth rate and has relied on labor intensive production to compete in the international market. While China traditionally has been known as a producer of light manufactured goods there has been a transfer towards production of technological goods.

This thesis analyzes the effects of the entry to the WTO on Chinese exports and income. I will first provide an introduction to the WTO, before I introduce the Chinese economy and explain shortly what has happened since the major turnover in the late 1970s. By using trade theory I will analyze both positive and negative effects of the entry. One of the arguments behind the WTO entry is that this will lead to credibility and will liberalize trade. The Chinese government had most likely this in mind when they finally agreed to enter. Chinese imports will be touched briefly, but the main objective of this thesis is to look at the effects on exports and income.

There are many interesting facts to analyze when it comes to China and the WTO. Why did it take so long before China became a member and what was the government's strategy and agenda behind the entry? China was already a large trading partner and the reason for the entry was probably to gain the same benefits as other countries already had. As presented by the WTO itself, being a part of the organization makes international trade become more peaceful. Many years ago countries used armed forces to fight trade disputes, while they are solved in a well-organized forum today. For countries this is efficient and time saving. Instead of negotiating with one country after the other we now see that large economies can negotiate with each other at the same time and make agreements that apply for everybody. Smaller countries have now the opportunity to express their opinions and together make a difference as well as an impact to the rest of the world.

My findings show that Chinese exports have increased a lot during its first decade as a member of the WTO. Trade liberalization is one of underlying causes for that. Removal of tariffs and quotas has led to increased exports to the rest of the world. I have focused on the textile, electronics and steel industry and showed that exports have increased in all of the industries. The growth after 2001 is more rapid than before the entry which indicates that WTO has had an influence on the export sector of China.

China as a whole has gained from the membership, but at the individual level the effects are not so clear. Increased production of manufactured goods and reduced production of agricultural goods has led to a migration from rural to urban areas of China. Most of the Chinese export production is located on the east coast of China where industrialization has developed the most. The income inequality among those two industries has increased. This has further led to regional inequalities. The average income level is much higher in urban areas on the east coast, than in rural areas in inland China. A future challenge for China is therefore to improve the reallocation of the gains from international trade. The Chinese government needs to focus on the income inequality and implement measures to reduce the inequality.

Table of contents

1	Introduction	1
2	The Chinese Economy	4
3	China in the WTO	6
4	International trade theory	10
4.1	Absolute advantage.....	10
4.2	Comparative advantage	11
4.3	Heckscher-Ohlin.....	13
5	The impact of trade policy on exports.....	18
5.1	Tariffs	18
5.2	Subsidies.....	21
5.3	Quotas	21
5.4	Dumping	22
6	The impact on Chinese exports and income.....	25
6.1	The Chinese export miracle	26
6.1.1	Chinese exports of textiles	29
6.1.2	Chinese exports of electronics.....	33
6.1.3	Chinese exports of steel.....	35
6.2	Chinese income growth and differences.....	38
6.2.1	Wages in agriculture and manufacturing	40
6.2.2	Income differences between rural and urban areas	41
7	Fair play in international trade?	45
7.1	Is China taking advantage of its status as a developing country?	45
7.2	Is China keeping the RMB undervalued?.....	46
7.3	Chinese imports	48
8	Conclusion.....	50
	Bibliography.....	52

List of figures

Figure 1: Annual imports and exports	2
Figure 2: Number of foreign funded enterprises	9
Figure 3: Production possibility frontier	12
Figure 4: Kinked production possibility frontier	14
Figure 5: Production possibility frontier with factor substitution	14
Figure 6: Rybczynski theorem	15
Figure 7: Tariffs	19
Figure 8: Chinese exports	26
Figure 9: Exports from Jiangsu, Fujian and Guangdong province	29
Figure 10: Chinese exports of clothing	30
Figure 11: Textile exports per province	31
Figure 12: Chinese exports of electronics	33
Figure 13: Exports of electronics per province	34
Figure 14: Chinese exports of steel	35
Figure 15: Top five steel producers in China (2008)	36
Figure 16: Steel exports by provinces	37
Figure 17: Average annual wage	39
Figure 18: Wage differences between manufacturing and agricultural sectors	40
Figure 19: Per capita income rural households	41
Figure 20: Per capita income urban households	42
Figure 21: Income differences between provinces	43
Figure 22: Foreign exchange rate: RMB to USD	47
Figure 23: Chinese imports	48

1 Introduction

The General Agreement on Tariffs and Trade (GATT) was established in 1947 after years of negotiations. The original plan was to establish the International Trade Organization, but after too much political opposition it never got established. China is one of the twenty-three original members that signed the GATT. But the government of Taiwan (Republic of China) decided to step out of the agreement in the 1950s, even though the government of the Peoples Republic of China (PRC), which is located in Beijing, did not approve this.¹ The government later argued back and forth whether they should join again or not. The GATT was replaced by the WTO in 1995 as a result of the Uruguay Round (1986-94), but it was not until December 11th 2001 that China finally became a WTO member.

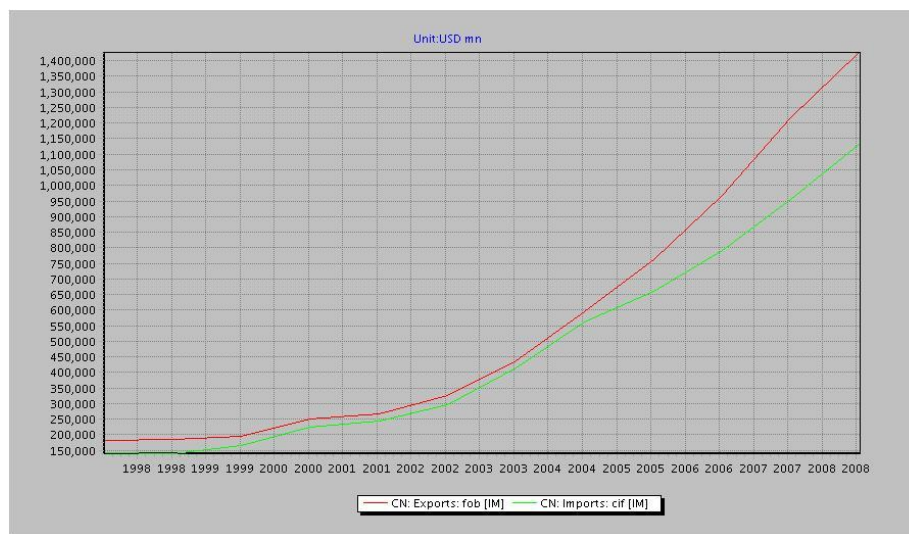
There are many interesting facts to analyze when it comes to China and the WTO. Why did it take so long before China became a member and what was the government's strategy and agenda behind the entry? China was before the entry already a large trading partner with many other countries. The reason for the entry was probably to gain the same benefits as other countries already had. As presented by the WTO itself, being a part of the organization makes international trade become more peaceful. Many years ago countries used armed forces to fight trade disputes. Now trade disputes are solved in a well-organized forum. This is efficient and time saving for countries. Instead of negotiating with one country after the other we now see that large economies can negotiate with each other at the same time and make agreements that apply for everybody. Smaller countries have now the opportunity to express their opinions and together make a difference as well as an impact to the rest of the world.

China entered the WTO as a developing country and is still benefitting from this status, but the question is whether or not it has moved towards a more developed economy. The law enforcement ensures that the smaller and weaker countries are being taken care of and makes sure that all the agreements and decisions are made based on rules rather than size and economic power (WTO, 2010). It will be interesting to analyze whether or not China is using its status as a developing country as an advantage.

¹ The Republic of China was founded in 1911 and included China, Taiwan and outer Mongolia. Peoples Republic of China was founded October 1st 1949 by the communist party and got separated from Taiwan. Throughout the thesis when mentioning China I will be talking about mainland China (PRC) if nothing else is mentioned. When discussing the government of China I therefore refer to the government of PRC.

There are no statistics over Chinese international trade before the reform in the late 1970s, so one must analyze the numbers available from the beginning of 1980s until today to see if there is a change in foreign trade that can be related to the entry. An interesting fact is that China accounted for less than one percent of international trade in 1980, while it accounted for 8,9% in 2008 right behind Germany (WTO, 2009). If we start looking at imports and exports we see that there has been a huge increase in both, especially after the entry into the WTO in 2001.

Figure 1: Annual imports and exports



Source: CEIC

The exports have increased more than the imports which make the statement about China being an export-oriented economy reasonable. China is relying on its exports to maintain high economic growth. Some argue that this is the wrong focus for the government. By focusing on exports the economic growth maintains high (government annual target is around 8%), but the government forgets about domestically important matters like becoming a market economy, achieving a functioning welfare system among others. Even though the population gets wealthier as each day passes, the inequality between rural and urban citizens is increasing.

There is no doubt that Chinese international trade has increased in the post-WTO era. The interesting question is however whether China would be in the same position if it did not enter the WTO. China was already on a stable path increasing both exports and imports even before it became a member, so it is unlikely that the entry is the only reason for increased international trade for China. It is however likely that the effects of the entry may have led to

an even faster and higher growth in both the exports and the imports. As we can see from figure 1, the steep increase started after the WTO entry in 2001.

The Chinese government has kept the RMB pegged against the US dollar for a long time and is hesitating to change the exchange rate system. The dollar versus the RMB makes Chinese exports very affordable, leading to cheaper Chinese than American goods. The American consumers are benefitting from this as Chinese goods become cheaper in the US. The Chinese producers are also benefitting as they can export more to the US as American demand for the cheaper goods increases. While American consumers and Chinese exporters gain, American producers lose. Since the consumers then buy more imported than domestic goods, the production in the US decreases. It is interesting to see that after China became a member of the WTO it had to let go of every official statistical measurement of tariffs and subsidies. Instead it is using a pegged RMB as an export subsidy. An appreciation of the RMB is likely to reduce Chinese exports, at least in the short run. This is an important and current dispute between the US and China. The US is blaming China for an undervalued RMB while China does not want to make any changes in fear of an appreciated RMB that will hurt Chinese exports and reduce its economic growth. Whether or not the exchange rate is a subsidy for Chinese exports, and in that case a violation to the WTO rules, is something I will briefly analyze.

This thesis will analyze the effects of the entry to the WTO on Chinese exports and income. I will first provide an introduction to the WTO. I will further provide a brief introduction to the Chinese economy and explain shortly what has happened since the major turnover in the late 1970s. By using trade theory I will analyze the effects of the entry, both positive and negative. One of the arguments behind entering the WTO is that this will lead to credibility and liberalize trade. The Chinese government had most likely this in mind when they finally agreed to enter. Chinese imports will be touched briefly, but the main objective of this thesis is to look at the effects on both the exports and income.

2 The Chinese Economy

The People's Republic of China was established October 1st 1949 and was in the following years ruled by Mao Zedong. Mao introduced an economic model where everything was government controlled and had many of the same traits as the Soviet communist model. The communist party, led by Mao himself, introduced the Great Leap Forward² and the Cultural Revolution³. Prices, profits, enterprises, everything was owned or controlled by the government who thought this was the best way to make money to start the process of industrialization. Special Economic Zones (SEZs) and State-owned enterprises (SOEs) were introduced and China went through a period of chaos and resistance from a lot of the population who suffered from the communistic government. It is important to note that even though the economy and the country were under control by the communist party, there were also some positive effects from the reforms. Mortality declined, education and life expectancy increased (Rawski, 2008). Mao changed the way of thinking when it came to international trade. China had been a closed economy, but the communist party decided that China could trade internationally if the trade was based on equality and reciprocity (Feng, 2006). After Mao's death in 1976 the new reform started in 1978. This involved China opening up more to the rest of the world at the same time as the economy started its process of becoming a market economy. The next decades the government decided to aim for high economic growth. They maintained this goal by increasing the export.

Back in the 1820's, China was the largest economy in the world, much larger than the United States. Then other countries except China got industrialized and China's share of the world GDP got reduced. China has been through a reform that has changed a lot during the last 31 years. Its world share of GDP has increased again. Starting out as a closed, poor and undeveloped economy back in the 1970s the reform, included a major shift towards a more market oriented economy where prices are determined by demand and supply instead of decided by the government.

² The Great Leap Forward was a plan that lasted from 1958 to 1961. It tried to modernize China through its agriculture and industry sectors. China was divided in several communes and people had to give up everything they owned and work for the communes that now controlled everything.

³ The Cultural Revolution was the second reform imposed by Mao and lasted from 1965-1968. It was an attempt for Mao to gain control again. The Red Guards were formed and contained of Chinese youth that was encouraged to criticize whoever Mao decided were untrustworthy because of the education and power they had. The attempt of making a classless society ended in 1968 when Mao's main competitor was expelled from the Communist Party and there was no need to continue the revolution for Mao.

Before 1978 there was a great degree of central government control. After implementing the Soviet command model everything was state controlled. The regime was willing to operate without any strong links to the outside world. Chinese firms were state owned and the government got all the profit which acted as the main revenue for the government. It was not until the reform started and the firms were off the tight leash that they were able to think more profit oriented. There were three main reasons why China was being inefficient; there were noneconomic policy objectives, weak institutions and poor incentives (Rawski, 2008).

After 1978 the central control was reduced. The economic system was modified and China started its rapid economic growth. During the next 25 years there were many factors that changed: GDP, labor productivity and per capita income rose. China opened up to the rest of the world and increased its exports by an incredible 28-fold from 1978 to 2003. New technology was used and together with a huge expansion of the industry sector this made the production more efficient. All of this, including many other factors, has made China the world's second largest economy (after the US), with an amazing economic growth. GDP real growth rate increased with 8.7 % in 2009 and made China one of the top four fastest growing countries in the world (CIA, 2010). The projected growth rate in 2010 is 10 % (IMF, 2010). This increase is similar to high-income countries, but it is important to remember that China has a very high population (Maddison, 2007) and it is still regarded a low income country.

When China went from a planned economy to a more market oriented economy there was also a shift in the variety of produced goods in China. Its production went from light consumer oriented manufacturing (textiles and food products in particular) to more intermediate goods and production of machinery that was needed to supply downstream industries. After China opened up for foreign trade we have seen an increase in high-technological industries, industries that produces for example electronics (Naughton, 2007).

The first big step for China was when the country decided to open up for foreign trade back in 1978. After it has developed as a major trading partner in international trade it was time to take the next big step. China became a member in the WTO 2001 after 15 years of negotiations with the organization.

3 China in the WTO

The World Trade Organization (WTO) was established January 1st 1995 and was a result of the Uruguay round of negotiations from 1986 to 1994. Before the birth of the new organization regulating international trade, there was an agreement valid for most countries since 1948, namely the General Agreement on Tariffs and Trade (GATT). The WTO is therefore a combination of the GATT and the Uruguay round of negotiations. The main objective of the WTO is to liberalize and regulate international trade and solve as a broker in trade disputes between international traders. There is no board of directors deciding new trade regulations. Everything decided by the WTO is a result of negotiations between the member countries. The organization helps smaller countries reach out to the larger ones and makes sure that every member can express their opinion. Even though a country is small, measured in economic power, the WTO ensures that the country does not get treated as inconsiderable. For the larger countries the organization works more like a time saving negotiating board. A large country does not have to negotiate trade agreements with each and every country; it can negotiate with several countries at the same time. The WTO makes sure that every country is treated equally and that all agreements, regulations and rules are the same for everyone. The main purpose of the organization is to ensure that international trade is as free as possible and that there will be no changes happening overnight. There shall be no discrimination between countries or goods or services and the principle behind this is named “the Most-Favored Nation” - principle (MFN)⁴. This means that countries can not discriminate imported goods to ensure that domestic goods are being consumed instead. It should be noted that the principle is only valid for goods that have not entered the domestic market yet. If a country charges duty on imported goods it can do that as long as this happens before the goods have entered the domestic market and are being sold. A country can not introduce a duty on an imported good that is selling a lot in the domestic market. This will discriminate the good and is a violation of the MFN. China got MFN treatment from the US already before it became a member of the WTO. The US and China signed a bilateral trade agreement in 1979 and China received its status as a MFN in 1980 (Morrison, 2009). As China became a member of the WTO it had to start treating other countries by the same principle and thereby stop the

⁴ ”Under the WTO agreements, countries cannot normally discriminate between their trading partners. Grant someone a special favor (such as a lower customs duty rate for one of their products) and you have to do the same for all other WTO members” (WTO A).

discrimination of other countries. An important effect of the WTO membership was therefore the MFN effect China committed to the other member countries.

As previously mentioned the WTO is a result of the GATT. The principles in the GATT are implemented in the WTO. The process of developing the organization took place over a period of close to 7, 5 years and is known as the Uruguay round. One hundred and twenty three countries took part and signed the agreement in Marrakesh in 1994 which founded the WTO.

The WTO wants to maintain free trade in the international market, but this does not mean it is against all trade regulations. International economics today is different than it was several years ago, and imperfect markets are more common than it used to be. Tariffs are not “illegal” in the eyes of the WTO, but a main objective is to regulate and agree on how high tariffs should be. The member countries agree on tariffs and can not regret this later and increase the tariffs without discussing it with the other member countries. The tariffs are therefore bound. China therefore had to reduce its tariffs when it entered the WTO as a direct effect of the membership.

Export subsidies, on the other hand, are not allowed. By subsidizing exports a country is regarded playing unfair in the international market. The WTO makes sure that international trade occurs smoothly and that developing and smaller countries do not get hurt by the action of the larger and more established economies. Even though the WTO does not support subsidizing China is accused by the US of subsidizing its exports, both directly through government subsidizing to the producers, and indirectly through the exchange rate policy. The membership therefore forced China to remove its export subsidies.

The process of becoming a member took China 15 years and it was not until December 11th 2001 China formally became a member. The US raised many demands China had to meet before it became a member. They wanted China to fully liberalize its trade regime before it entered. A compromise was reached in the end allowing China to become a member at certain requirements to immediately reduce various trade barriers. At the same time China was allowed to protect some sensitive sectors. China entered the WTO as a developing country and the government insisted that it needed to enter at a more beneficial term than other member countries. China also agreed to reduce the tariff for industrial and agricultural goods, limit subsidies for agricultural production, grant full trade and distribution rights to foreign firms,

have non-discriminatory treatment to all WTO countries, fully open its banking system and implement the WTO's Trade-Related Aspects of Intellectual Property Rights Agreement ⁵. It also had to agree to let the US treat China as a non-market economy for the first 12 years of the Chinese membership. This means that the US and other WTO members can protect their own domestic market if Chinese goods are threatening domestic producers. They are then allowed to use tariffs or quotas to restrict the imports of Chinese goods. (Morrison, 2009). China completed the negotiations of bilateral trade agreements with several WTO members before it became a member. These agreements allowed China's entry to be less complicated than it could have been (Hertel, 2000). The changes in Chinese international trade therefore became less drastic than they could have been if China had not already started the process of implementing some of the agreements. China had not entered it would have missed the benefits the member countries have. This would have protected the Chinese economy more in the short run, but in the long run China had more to gain as a member. China has long worked towards the status as one of the most important trading partners in the world, and if not entering it would have sent a negative signal to its trading partners. It was important for China to show that it wanted to be taken into account when decisions with huge impact are made.

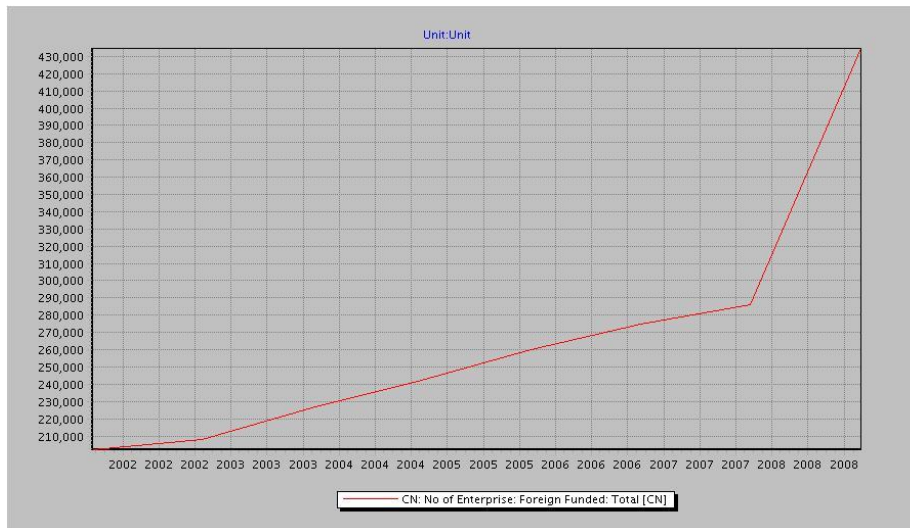
Being a member of the WTO China has to commit to many agreements. It has to follow all the laws, requirements and rules at all levels of its government, from local to central government. At the same time China needs to inform the WTO of all the changes it makes to its domestic economy. The situation today shows us that China has not been able to complete all of its agreements. The banking system is still dominated by state owed banks, in addition to the fact that China is still accused of subsidizing and maintaining its tariff even though it promised to let go of them.

One of the most important features of the entry is that it made it easier for foreign enterprises to establish its practices in China. Even though there were many foreign enterprises in China pre-WTO there has been an increase after the entry. It is therefore reasonable to assume that the entry in the WTO, as a step in the process of China opening up, has led to more foreign investors in China. This is not something that is directly regulated in the WTO, as the WTO does not mean a free flow of foreign investments. The average foreign direct investment was a high US \$55 billion between 2001 and 2005 (Peoples Republic of China, 2006). The

⁵ The Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS) is an agreement regulating intellectual properties. Intellectual properties are monopolies that include artistic productions. TRIPS include requirements each member nation must follow when it comes to patents, copyrights and protection.

government had to make a promise to regulate the buying of firms (SEO's). If the government wants to interact in the process of buying firms this must be done under free market conditions.

Figure 2: Number of foreign funded enterprises



Source: CEIC

Most of the foreign funded enterprises are joint ventures between Chinese and foreign enterprises. This is something that goes back historically. It used to be the only way to invest in China since the Chinese government wanted to keep as much control as possible. The fear of letting foreign investors gain too much market power was the underlying reason for that. It is more common today that foreign enterprises are fully foreign owned.

The current round of negotiations is known as the Doha Development Agenda (DDA). The negotiations started in 2001 and were supposed to end by January 1st 2005. The deadline was not reached and a new deadline by the end of 2006 was set. The WTO missed its 2006 deadline as well, and the negotiations are still an ongoing process.

Briefly summarized a membership in the WTO therefore means lower and bound tariffs on imported goods, no subsidies, regulated quotas, more liberalized trade regime and no discrimination among trading partners. This should further lead to better living conditions. If China is not following these requirements it should expect punishment from other countries.

4 International trade theory

In order to understand the impact of WTO membership on Chinese exports and the Chinese economy we need to turn to trade theory. Trade theory explains the sources and gains from trade and the effect of trade liberalization on exports, imports, income and industrial structure.

Countries trade with each other because they gain from it. They are able to export goods they are relatively better in producing, while importing goods other countries are relatively better in producing. Countries gain from trade, but unfortunately there might be particular groups within a country that does not gain from trade. As I will show later, the effect of removing some of the regulations on Chinese trade has led to certain industries and groups being worse off. There is an increasing inequality between rural and urban areas which is pointed out in the latest OECD report (OECD, 2010).

I will first present some traditional and basic international trade models to explain the concept of trade and the gains, before I turn to trade policies and view each instrument in the perspective of China. There is no such thing as free trade in the real world. Hong Kong, legally a part of China but with its own separate economy, might be the only economy in the world with no tariffs or quotas.

4.1 Absolute advantage

In the 1700s Adam Smith introduced the concept of absolute advantages. The concept worked for households trading with each other back then and was later used among countries. A country should produce what it is better at and sell to other countries, while it at the same time should import what other countries can produce better (Pugel, 2007). There are different ways to measure which is better at producing a certain good. The country that produces the most units of a good during one hour, or the country that spends the shortest time producing one unit are both two examples that measure the labor productivity. The countries that are the most efficient in the production have an advantage and should therefore produce and export to other countries. This means that a country should trade internationally what it can produce cheaper than other countries. Each country should specialize in what they are best at. This

indicates that China should specialize, produce and trade goods that are made by human hand as the cost of labor is much lower in China than many of its trading partners.

4.2 Comparative advantage

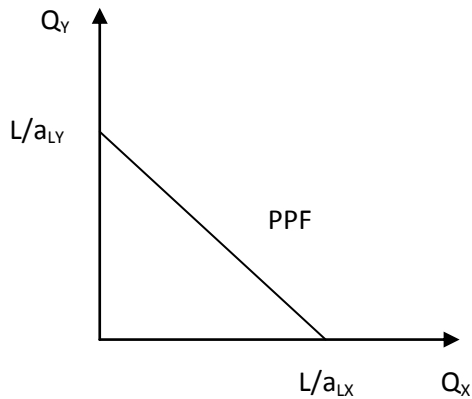
Krugman and Obstfeld (2009) define comparative advantage as an advantage in production if the country has a lower opportunity cost than other countries. This means that countries should trade internationally what they have a comparative advantage in producing, not only goods they have an absolute advantage in. If the opportunity cost in producing a good is low the country will export the good to the rest of the world. On the other hand will imported goods have a higher opportunity cost in the production (Pugel, 2007). The difference between absolute and comparative advantages is that comparative means relative and we are therefore looking at how a sector or country can produce goods relatively cheaper than others. This means that even though a country has no absolute advantage in any sector it might still be reasonable to produce in at least one sector where it has a comparative advantage. This means that the country and its trading partners will gain from trading with each other. Comparative advantage was introduced by David Ricardo. It focuses on differences in labor productivity between countries. This can be shown by using a one-factor economy.

By including labor we see that we have limitations on the production which is given by

$$(1) a_{LX}Q_X + a_{LY}Q_Y \leq L$$

where Q_X is the amount of good X which is produced, Q_Y is the amount of good Y, a_{LX} is the labor effort used in producing good X and a_{LY} is the labor effort used in producing good Y. $a_{LX}Q_X$ is the total production of good X and $a_{LY}Q_Y$ is the total production of good Y. The labor used in producing those two goods can not exceed the total labor supply in the economy. This is defined by the production possibility frontier (PPF) in the economy.

Figure 3: Production possibility frontier



It is then possible to determine which production the country should specialize in. It will produce good X if the price of X relative to the price of Y is larger than the opportunity cost of producing good X. This means that

$$(2) P_X/P_Y > a_{LX}/a_{LY}$$

The country will specialize in producing good X, where P_X and P_Y are the respective prices. This is because the workers want to be employed in the production that yields the highest wages. If equation 2 holds we see that this is the case. By taking this one step further and allowing international trade we must compare the relative prices in one or two countries versus the rest of the world. The two country model consists of two countries; Home and Foreign. I choose to give Foreign the notation *. We can show that Home has a comparative advantage in producing good X if

$$(3) a_{LX}/a_{LY} < a^*_{LX}/a^*_{LY}$$

This means that comparing the relative costs shows us which country has a comparative advantage in producing certain goods. World supply and world demand will determine the world market price. The main factor behind the relative prices is labor productivity.

Differences in labor productivity can be translated into differences in technology.

Comparative advantages decide who should produce what. But in the real world there is nothing like complete specialization. Trade barriers and transportation costs are other examples making international trade more complicated in Ricardo's theory. At the same time we see that Ricardo ignores income distribution within the trading country. As the country

gains from trading with others we see that this might lead to some being better off while others become worse off because of the redistribution of wealth. Economics of scale are also being ignored. There are also other conditions making the theory seem less realistic, but empirical results show that the theory holds in the real world (Krugman, P. and M.Obstfeld, 2009).

4.3 Heckscher-Ohlin

From the previous section we know that David Ricardo saw differences in labor productivity (technology) as the reason for international trade. There has later been added other theories explaining international trade. The factor-proportions theory is also known as the Heckscher-Ohlin theory. The main thought behind this theory is that factors differ between countries, both in quantity available and differences between countries (Krugman, P. and M.Obstfeld, 2009). Trade happens because of differences in factor endowments. This means that a country should export goods that have a high content of the country's abundant production factor and import goods with a high content of the country's scarce production factor. The underlying assumptions of the Heckscher-Ohlin theory are:

“Identical technologies across countries; identical and homothetic tastes across countries; differing factor endowments; and free trade in goods”.

(Feenstra 2004: 31-32)

According to Heckscher-Ohlin a country should produce a bundle of goods. To illustrate the model I choose to use the “2 x 2 x 2” model as shown in Krugman and Obstfeld (2009). This implies two countries, two factors and two goods. The logic behind is the same as previously shown. There are two countries, Home and Foreign, two goods X and Y and two factors of production; L and T. We already stated that

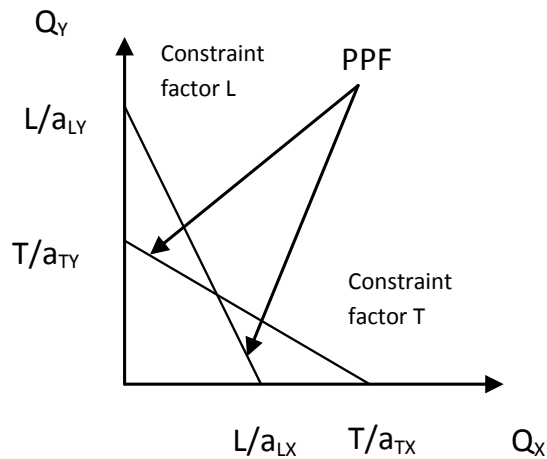
$$(1) a_{LX}Q_X + a_{LY}Q_Y \leq L$$

In this model we introduce another resource constraint, stating the same thing for the other production factor.

$$(5) a_{TX}Q_X + a_{TY}Q_Y \leq T$$

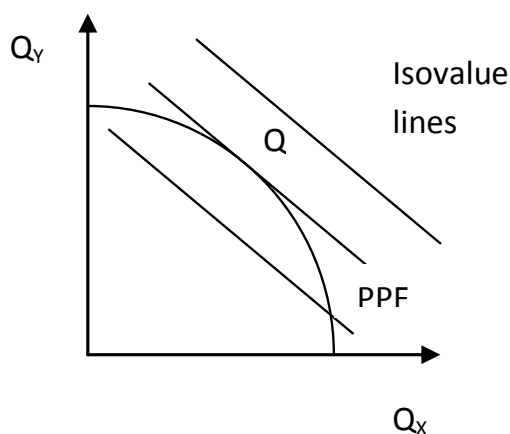
If not allowing for factor substitution we get a kinked production possibility frontier., as shown in the figure below.

Figure 4: Kinked production possibility frontier



On the other hand we get a better picture of the production in the real world if we allow for substituting L for T and vice versa. The production possibility frontier then becomes smooth and bowed and looks like a convex graph we are used to.

Figure 5: Production possibility frontier with factor substitution



The economy will produce a combination of the two goods where it maximizes the value of the production. The value of production is given by

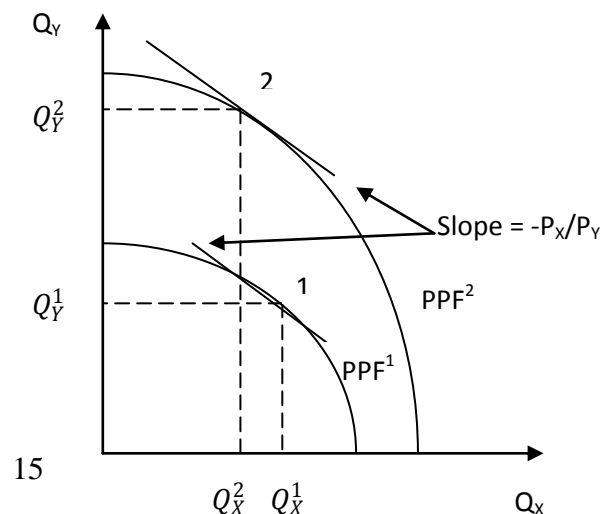
$$(6) V = P_X \times Q_X + P_Y \times Q_Y$$

The isovalue lines have the slope $-P_X/P_Y$ and define the production when the market value is constant. The welfare is maximized where the isovalue line is tangent to the production possibility frontier, shown by point Q in the figure. We see that the producers are able to choose a combination of producing both goods and can therefore produce what is reasonable given their inputs.

The Heckscher-Ohlin theory tells us that while someone can gain from trade in the long run, others will not. One implication of this is that trade will lead to changes in product prices and further to income changes within the economy. If country Home opens up for trade there will be an increase or a reduction in the factor prices which will lead to higher or lower income for the owners of the factors. There will be an allocation from the industry with lower prices to the industry that has increased its prices. This means that if trade leads to a higher price for land, owners of land will increase their income. Vice versa for other factors that has a declining price. The factor used intensively, in the industry facing a higher price, will have a higher real return than others. On the other hand, if the price is reduced there is a lower real return. This is the Stolper-Samuelson theorem and is an effect within the country that opens up for foreign trade (Pugel, 2007).

Another important effect from trade can be explained by using the Rybczynski theorem. This theorem states what happens when there is growth in only one of the factors while the other factor is held constant. The result is a strongly biased growth. The production that uses the growing factor more intensively will produce a higher output of the good. The amount of the other good will decrease because increased production of one good requires more input factors. Since there is a restriction on factors there must be a transfer of factors from one industry to another (Pugel, 2007).

Figure 6: Rybczynski theorem



There are gains and losses from international trade. By opening up for trade a country is able to both consume more and consume a different variety of goods than it would have without trade. This indicates that the country as a whole, even at the individual level, gains from trade (Krugman, P. and M.Obstfeld, 2009). However, this is not always the situation. Trade leads to income redistribution within the economy. Some industries increase their production, others have to make cuts. Depending on which industry an employee works in he/she will face an increased or decreased income.

Empirical results show that the theory does not always hold. A survey of the United States showed that the share of capital intensive good exported was smaller than the share of capital intensive imports. This was a surprising result. One expected that the US would export capital intensive goods because capital is the abundant factor, and import labor intensive goods. This indicates that even though capital is the abundant production factor in the US it still imports more of the same category of goods. This is known as the Leontief paradox (Krugman, P. and M.Obstfeld, 2009). This means that trade does not always happen within the theoretical framework. The theory covers most of the countries, but there will always be unique cases where countries do not fit in.

Scholars argue that the assumption of equal technologies across countries might be the reason why the Heckscher-Ohlin theory fails in so many cases (Feenstra, 2004). It is not reasonable to assume that the labor productivity is the same across all countries. But still, Heckscher-Ohlin takes income distribution into account, an important factor which other theories neglect.

As presented by Pugel (2007) there are three implications of the Heckscher-Ohlin theory. First, the Stolper-Samuelson theorem indicates, as presented above, that when a country opens up to international trade there will be gainers and losers in the long run because of changes in prices. Second, the Specialized-Factor Pattern states that

“the more of a factor is specialized, or concentrated, in the production of a product whose relative price is rising, the more likely it is that the factor gains from the change in the product price”.

(Pugel 2007:71)

This goes the other way around as well. Last we have the Factor-Price equalization theorem. The theorem states that international trade leads to more equalized individual factor prices among countries. This indicates that workers will earn the same in every country and that

units of input factors face the same rental return. This explains why labor abundant countries export labor intensive goods and import for example land intensive goods.

5 The impact of trade policy on exports

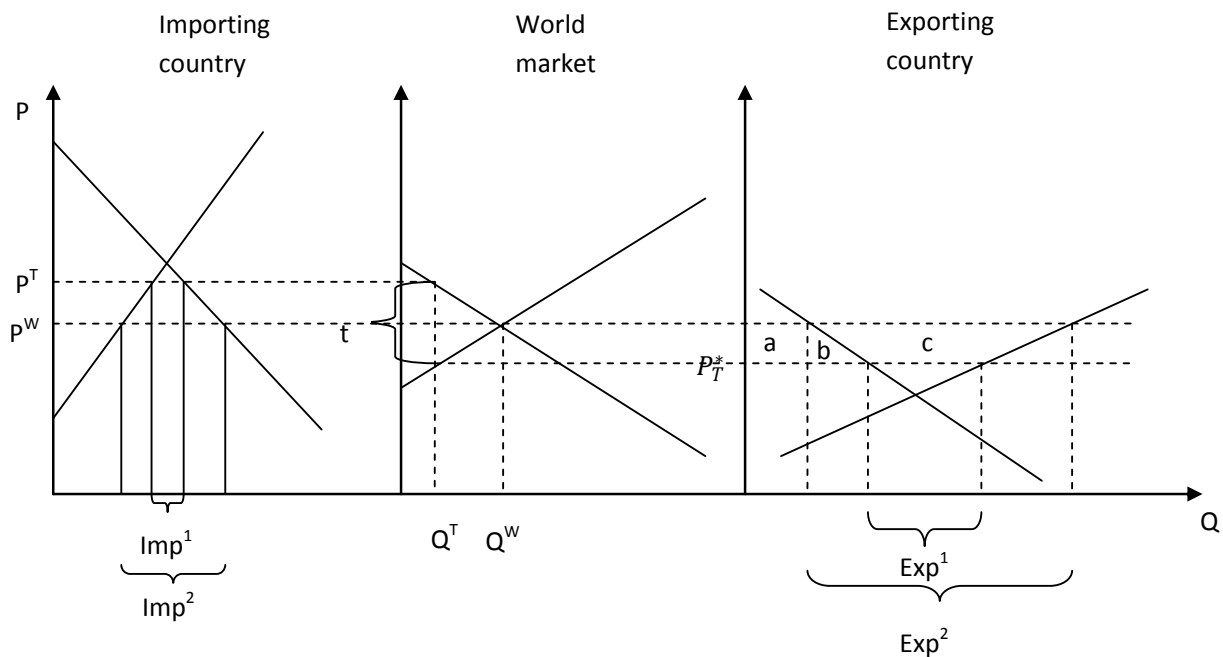
There is unfortunately no such thing as free trade. There are several instruments that can be used to promote exports and regulate imports. Because of the WTO regulations on international trade there are not so many instruments that can be used. Becoming a member of the WTO led to reduced trade barriers for Chinese producers. I will briefly present the effects of trade regulations and expectations from the WTO entry.

5.1 Tariffs

Governments often put taxes on imported goods to ensure government income. There has been a reduction in the use of tariffs over the last few years, import quotas and export restraints has become more popular (Krugman, P. and M.Obstfeld, 2009). Consumers do not see tariffs directly. It is a mark up on the price and makes the imported good more expensive. For the exporting producers the tariff is just like an extra transportation cost making it more expensive to sell and ship goods abroad. The result of a tariff on a good is reduced import of the good and higher domestic price. The main thought behind implementing a tariff is to protect domestic producers. If the tariff makes the imported good more expensive the domestic consumers will buy more domestic goods instead. This ensures that domestic producers stay in business.

The benefits, for domestic consumers and exporting producers, from removing a tariff can be illustrated in the figure below, where trade with and without tariff is shown.

Figure 7: Tariffs



If a country has imposed a tariff on an imported good the price facing the domestic consumer (P^T) is higher than without a tariff (P^W). The quantity demanded by the consumers is therefore lower than with no tariff. If the importing country decides to remove the tariff they will increase their import from Imp^1 to Imp^2 , because the good becomes cheaper and demand increases.

The cost of an imposed tariff is separated between the consumers demanding the imported good and the exporting producers that supply the good to the international market. This is if the importing country is large. The exporting producers therefore only receive $P_T^* = P_T - t$ for each unit they export. Because of lower prices facing the exporters, the amount of exports is only equal to Exp^1 . When the tariff is removed the exporters will face world market price (P^W). When the price increases the exporting producers are willing to supply more and the exporting country will therefore increase its exports. Removal of a tariff therefore leads to higher exports for the exporting country. The producer surplus in the exporting country is increasing by the amount of a , b and c . The exporting producers gain from the removal of the tariff.

High tariffs are more common for developing countries. The reason for this is that they usually do not have taxes to ensure government revenue. There are few welfare benefits the population can benefit from. So what happens when we remove the tariff? If we do the

reasoning backwards we see that removing tariffs lead to lower prices for the domestic consumers. The imported goods become cheaper which leads to higher demand. The consumers gain from that as the consumer surplus increases, and vice versa the producers are losing.

When China became a member in the WTO this implied that it had to reduce its tariffs on imported goods. On average the Chinese tariff has been reduced from 15,6% by the time China entered the WTO in 2001, to 9,9% in 2009 (Morrison, 2009). This should lead to increased imports of international goods to China. The membership also implies that China must be treated equally by other countries. This does not mean that other countries must reduce tariffs on Chinese goods, it is rather that tariffs are bound. This means that other countries can not raise the tariffs without negotiating with China. .. One of the main objectives of the WTO is to reduce tariffs through bilateral negotiations and agreements. If other countries remove or reduce tariffs on Chinese goods there will be an increase in international demand for these goods. Chinese exports then become more affordable for households and demand will increase. The same effect can be expected when removing import quotas. When other countries remove its restrictions on Chinese imports the price will decrease and more consumers can afford the goods. Trade theory therefore makes us expect that there should have been an increase in Chinese exports after China became a member of the WTO.

China has an advantage being a developing economy and it is benefitting from the European Unions (EU) General System of Preferences agreement (GSP). China has been benefitting from this agreement even before it became a member of the WTO. The GSP agreement makes sure that 176 developing economies around the world gets easier market access in the form of reduced tariffs on goods imported from developing countries. The agreement is set for three years at a time and today's agreement is valid from 2009-2011 (European Commission Trade 2010). There are 13 nations that have signed the GSP agreement, but only eight of those provide China with reduced tariffs through the agreement. These are Belarus, Canada, the European Union, Japan, New Zealand, Norway, Switzerland and Turkey. The US has also signed the agreement, but does not support China (UNCTAD 2010). Norway has provided developing countries with lower tariffs through the GSP since 1971 (Finansdepartementet 2010). The agreement is an exemption from the more general WTO rules. As a member of the WTO China therefore gets benefits beyond the MFN-rates, meaning lower or even zero tariffs

on certain goods. This agreement therefore provides the expectation of increased Chinese exports to the eight countries providing the GSP rights (UNCTAD 2010).

5.2 Subsidies

Another way of promoting exports is when the government decides to support domestic producers in selling their goods on the international market. It is the exact opposite, and more common, than tariffs. The subsidies help domestic producers afford exporting goods to the international market (Krugman, P. and M. Obstfeld, 2009). By receiving an export subsidy the exporting producers receive the price P^s and are therefore willing to supply more than before. The subsidy leads to higher domestic price as well and the domestic consumers will demand less.

Governments use subsidies to help producers that have problems entering the international market, the reason being that they are new or small. It is also used when promoting and developing smaller industries or sectors. The figure shows that exporting producers gain from the subsidies. The shaded area in the figure shows how much the producer surplus increase when they receive a subsidy from the government.

The WTO rules are there to help both the exporting and the importing countries and to determine if subsidizing is taking place according to these rules. The WTO takes both parties' interests into account. The WTO prohibits the use of subsidies as a promotion of trade. This implies that when China became a member it had to remove its export subsidies in those sectors where the government used it as a way of helping its producers. This leads to an effect of the membership in the opposite way as removal of tariffs. If Chinese government remove its subsidies this should lead to reduced Chinese exports.

5.3 Quotas

The government can decide to put regulations on how much the country shall import from foreign producers. This is, just like the other instruments, a way of protecting domestic producers. The import quota raises the domestic price of the good because of the limitations

of the product (Krugman, P. and M.Obstfeld, 2009). Higher prices on goods leads to reduced demand from domestic consumers, while producers are willing to supply more. The difference between D_2 and S_2 is the import. This amount is equal to the import quota. The import quotas are a result of negotiations between the importing and the exporting countries.

5.4 Dumping

Many of the cases WTO treats are anti-dumping cases where a member country is accused, by one or several of the other members, of performing dumping. China is the nation involved in the most anti-dumping disputes. Price discrimination like this occurs when a producer charges a lower price for the exported good in other countries than it does for the same good domestically. Member countries of the WTO are not allowed to do this, according to the rules, as it is regarded unfair play in the international trade game. According to Krugman and Obstfeld (2009) there are two requirements to make dumping possible. The market must be imperfect so that the producers can act as price setters instead of price takers. This indicates a monopoly market. The second requirement is that the market must be segmented so that domestic consumers do not consume the goods intended for exports. Producers are able to do this because international markets are usually imperfect. Firms usually have larger market share at the domestic market than at the international market, making it easier for them to cut prices abroad. As a result of cutting prices they increase their sale which is a strong incentive for price dumping.

As a response to price dumping countries are allowed to impose an anti-dumping tariff on goods that are sold cheaper in the international market. If the US for example investigates and finds that Chinese exporters are selling the goods at a much lower price in the US than it does back home, then the US can impose anti-dumping measurements to protect the domestic market. The US can then introduce an anti-dumping tariff that raises the price of the goods. This can be done by a government as a response to what is regarded unfair play. The tariff will therefore prevent domestic producers to exit the market as the imported goods become less of a threat.

The problem is when anti-dumping tariffs are used in the wrong way. The tariffs can be used as a trade policy as well as price dumping. It can be used as a way of protecting and closing

the domestic market for international producers. Developed countries seem to be the largest users of anti-dumping tariffs. The WTO has therefore developed the Anti-Dumping Agreement that presents guidelines for governments to follow. Dumping disputes treated in the WTO are usually started by governments wanting to protect its own domestic market against international producers trying to receive higher market share. If an international producer is charging lower prices than they do in their own country, this is unfair and will most likely push domestic producers out of the market. The agreement therefore allows the government to react if dumping has a negative effect on the domestic market (WTO A). The agreement does not directly state that dumping is illegal but it puts certain restrictions on it. It states that dumping is illegal if the dumping has a negative effect on the domestic market. Indirectly this can be interpreted as dumping is illegal. Producers will only dump prices in the international market if they can gain market share. The use of price dumping becomes useless if it does not involve lower prices than international competitors. The producer wants to sell more abroad and make money on that, and to do that he needs to steal customers from other producers.

Economists argue if dumping is a bad thing or not. It is perfectly normal to have imperfect markets, so why should a producer be punished if he is trying to maximize his profit? It is hard to determine if a producer is performing dumping or not as it can be hard to get a hold of the real costs of producing a good. But we see that larger countries, like the US, try to calculate what the price should be to achieve better knowledge about its competitors. The WTO allows countries to impose anti-dumping duties to countries that are a threat to the domestic market. This means that if China is performing price dumping in the US and this hurts American producers, the US can perform a counterattack and impose a duty that makes the Chinese good more expensive in the US market.

An interesting question is therefore whether or not China is performing price dumping in the international market. If China is doing this we should expect that other member countries have imposed a tariff on Chinese goods after China became a member. This would further imply reduced Chinese exports. Before China became a member of the WTO the other member countries could treat imports from China as they decided themselves, except those countries that granted China with voluntary GSP treatment. There were no restrictions on anti dumping measurements when it came to Chinese goods. A direct effect of China becoming a

member of the WTO is therefore restrictions on the anti dumping measurements from other countries (Bown, 2007). ..

6 The impact on Chinese exports and income

China's entry in the WTO represented a shift in the economic history. The membership in the WTO represents a move towards a more international and acknowledged way of thinking. The process of becoming more market oriented started by accepting the rules and requirements set by the WTO. China has been taken as a more serious trading partner since the entry. The rest of the world was waiting for China to enter, but it took 15 years of negotiations before it finally became a member. China could have chosen to not enter to control its own economic development without any foreign pressure (Feng, 2006). The Chinese economy grew before the entry and would possibly have continued to grow even if China did not enter. Findings show that the membership has affected the Chinese economy in a positive way and the growth in export has been more rapid after 2001. One can therefore draw the conclusion that the entry into the WTO has affected Chinese exports in a positive way.

One of the main criteria's behind the WTO is a requirement for all its member countries to be market economy. China entered as an economy in transit and was not a market economy at the day of the entry and it is still not. However, by entering the WTO the government made a commitment to speed up the transformation. As Feng (2006) presents, the entry is not only a signal that China wants to be taken serious; it was also a way of normalizing its politics to implement international trade rules and behavior. The first and immediate effect after the entry was increased market access abroad (Blancher, 2004). China was able to supply cheaper goods than its international competitors and sold more because of the low cost in producing them. Other international producers have suffered from this, by being pushed out of business by Chinese firms.

China has obtained a positive trade balance since the beginning of the 1990s with an explosive increase during the 21st century. It makes sense to assume that the entry into the WTO is one of the causes behind the increase in trade surplus from 200,000 million RMB in 2001 to 2,000,000 million RMB in 2007. Because of the reduced international trade during the global crisis we will see a lower trade surplus for China for the next couple of years. China presented its first negative trade balance in March 2010, the first deficit since 2004.

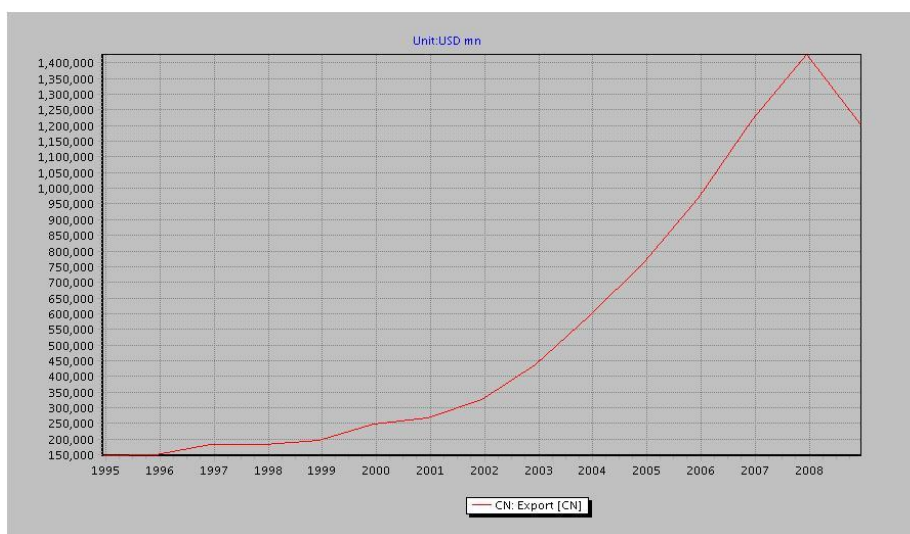
6.1 The Chinese export miracle

China has the largest labor force in the world, counting for more than 812 millions. This is almost twice as much as India, which holds the second largest (CIA, 2010). Most of the labor force is unskilled, even though the number of students achieving a higher degree is increasing every year. China is therefore a labor intensive country and has a comparative advantage in the production of labor intensive goods.

The Heckscher-Ohlin theory tells us that when a country like China opens up there should be an increase in international trade. China should export goods that are made with its abundant factor, while it should import goods made by its scarce factor. Since China's comparative advantage is its cheap labor, China should export labor intensive goods. Because of the large labor supply Chinese producers have been able to expand its production. This implies that China has increased production in the labor intensive industries, while other industries have grown less rapid. The theory expects uneven growth among the industries.

Empirical results confirm the expectations we got from trade theory. Chinese exports have increased in the following years since the country opened up for foreign trade back in 1978. China exported five times more in 2008 than it did back in 2001, so the expectations of increased exports after the WTO entry were correct.

Figure 8: Chinese exports



Source: CEIC

China got hit by the global crisis in 2008 as well as the rest of the world. Reduced external demand led to a decline in Chinese exports during 2008, but the decline was not as bad as the rest of the world. Chinese exports dropped 16 % from 2008 to 2009, while world total exports decreased by 21, 4 %. One explanation why China got affected less than rest of the world is that the Chinese government reacted very fast and provided its economy with the stimuli it needed. The Chinese government introduced a fiscal package already in November 2008, which included tax cuts and increased government spending. China therefore recovered quickly. China has also increased its imports during the crisis and might become the world's largest importer in 2010 (Dawn Holland, 2010). The increase in imports comes mostly from other Asian economies. The Chinese stimulus package has therefore helped its neighbors. The effects on international trade could have been much worse if China had not presented its package at the time it did. The rest of the world has unfortunately not benefitted from the Chinese rescue as much as the Asian countries have. The effect on the US and the EU has been smaller.

Because of the Chinese achievements during the crisis, economists fear that the economy is overheating. The pressure in the economy is still high in some sectors and there might be need for actions to escape the fear of bubbles. The government has still a focus on maintaining the high economic growth rate. At the same time it recognizes the need for an industrial restructuring and an extension of the welfare system.

Fung, Pei and Zhang present eight reasons for the increase in foreign trade for China after the entry into the WTO. First, the economic growth China has been facing ever since the entry has led to increased international demand for Chinese goods. The membership has led to China being taken as a serious trading partner and thereby increased its share of international trade. Second, the export refund policy has become stronger and this makes foreign trade more affordable. Third, the goods and services China exports have been shaped especially for the international market, making them more attractive for buyers abroad by being custom made for each market, resulting in increased Chinese exports. Fourth, a depreciation of the US dollar has helped Chinese trade growing. As I will come back to, there are some western countries (in particular the US) arguing that China is using its currency as an export subsidy, making its exports continuing to increase. Fifth, the entry led to better foreign trade environment. Sixth, there was a change in the international trade policy that led to more countries gaining from trade with China. Seventh, increased Foreign Direct Investments

(FDI's) made Chinese exporters better off. The inflow of foreign capital has led to sectors being able to expand their production. And finally, there has been disproportionate growth in the exports of those goods China already exported a lot of before the entry (Hung-Gay Fung, 2006).

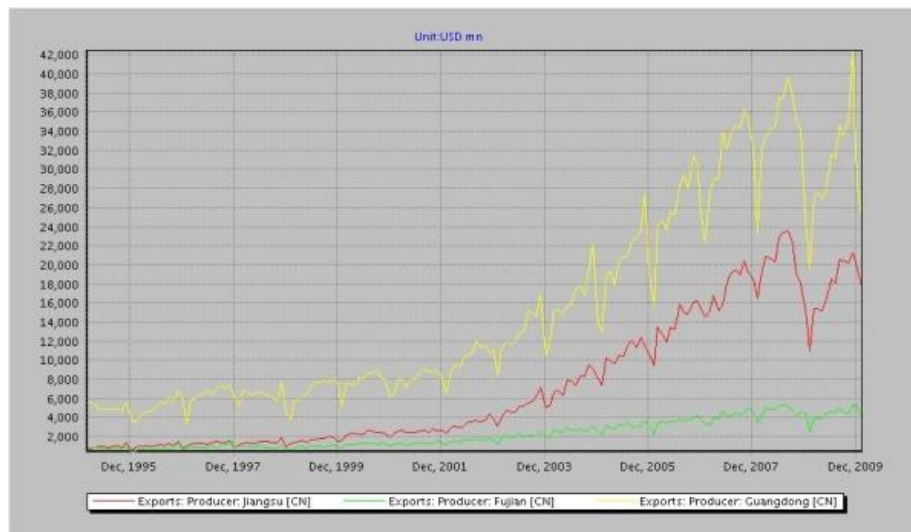
Rodrik (2006) argues that the Chinese exports are too sophisticated for a country like China at its income level. There has been a change in the export structure over the last years. China used to export light manufactured goods like clothes, shoes among others in addition to agricultural goods. Today's situation is different. The exports of more technological goods have increased (Blancher, 2004). China is able to change focus because each worker can specialize in different stages of the production and there is therefore no need for higher education. It can produce electronics at a low cost and sell them cheaper, than for example the US, in the international market⁶. Cheap labor and low prices of Chinese goods are therefore an underlying factor of the high export rate.

After analyzing Chinese exports at an aggregated level, the next step will be to analyze the composition of exports at the regional level. I have chosen to focus on the two largest exporting provinces in China, namely Guangdong and Jiangsu, in addition to the sixth largest province; Fujian. I have chosen to not focus on Shanghai, which is also a large exporter, for several reasons. One reason is that Shanghai is not a typical Chinese province. Because it is the largest city and the financial center of China, Shanghai has developed faster than rest of China.

All these three provinces I have chosen to focus on are located on the east coast side of China. The provinces account for most of Chinese exports to the rest of the world. The development in exports in the respective provinces is shown in the figure below. It shows that Guangdong province has experienced the most rapid growth since 2001.

⁶ There is however a difference in what kind of electronics the US and China are producing. China tends to produce a large quantity of cheap and simple electronics, while the US aims for more sophisticated products.

Figure 9: Exports from Jiangsu, Fujian and Guangdong province



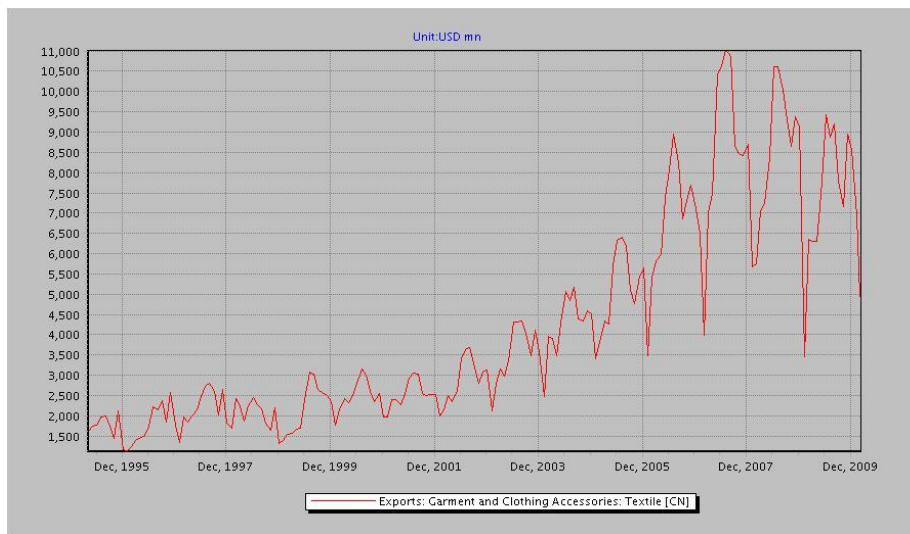
Source: CEIC

There has been an increase in exports from all these three provinces. They all experienced a drop in exports during 2008 when China was hit by the global crisis. One main factor behind the large exports by these provinces is their location. They are all located on the east coast of China, making it easy available for transportation by ship to the rest of the world. The east coast of China has developed more than inner China. If we look at the top ten exporting provinces we see that they are all located on the east coast. The eastern provinces are more industrialized and urbanized, which helps explain why the income differences within China are so large. This is something I will analyze in section 6.2.

6.1.1 Chinese exports of textiles

China has been the world's largest exporter for about 15 years. Its world share accounted for 26, 1 % in 2008, experiencing a growth of 17 % from 2007 (WTO, 2009). Clothing marked "made in China" is sold all over the world and China is able to produce clothing at a low cost. According to the theory we see that China should export labor intensive goods since cheap labor is its comparative advantage.

Figure 10: Chinese exports of clothing

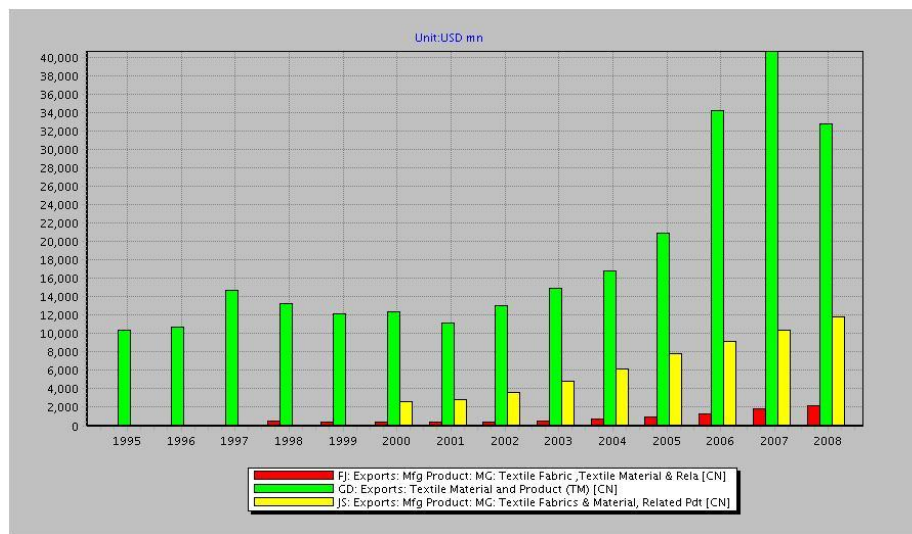


Source: CEIC

Chinese exports experience seasonal fluctuations. We see that exports are pretty high in the end of each year, while it drops a lot in the beginning of the following. This is related to Christmas shopping and especially the western countries consuming more around that time than the rest of the year. The trend shows that exports of textiles have increased since China entered the WTO. However, it also shows that China has been affected by the global crisis. The drop in export was significantly larger in January 2009 than the years before. The US, which is the largest importer of Chinese textiles, had a reduction in imports of textiles on 4% from 2007 to 2008 (WTO, 2009). Given the conditions the US is facing today there has most likely been a reduction from 2008 to 2009 as well. Textile exports have declined all over the world because of reduced external demand as an effect of reduced purchasing power among households.

Guangdong is the largest textile exporting province in China. Its exports decreased by almost 20 % from 2007 to 2008. It is however important to note that both Jiangsu and Fujian provinces have increased their textile exports in the same time period. This is illustrated in the figure below.

Figure 11: Textile exports per province



Source: CEIC

The exports of textiles from Guangdong province were fairly stable before the 21st century. After the entry in the WTO the textile exports increased more rapidly. It was not until 2005-2006 we see a large increase from 20.964 million USD to 34.277 million USD. This can be seen together with the termination of the Agreement on Textiles and Clothing (ATC) on January 1st 2005. This was the end of the era where quotas ruled. According to trade theory elimination of quotas will lead to increased supply and lower prices in the domestic market. When China's trading partners removed quotas there was increased supply of Chinese goods. This is exactly what has happened. China was one of the countries that were most restricted and the elimination had therefore a huge effect on the textile industry. There was expected that China would benefit from this and increase its world market share since most of world imports of textiles come from China. This led to more Chinese textiles entering the international market which drove down the price. Clothing became more affordable for the consumers and China gained market share. Some argued that the assumption of increased market share abroad was unrealistic because of untrustworthy statistics from Chinese government. It is unfortunately a common problem that Chinese statistics are manipulated by the government. It is therefore hard to find the actual number of exports that is comparable from year to year. Some of the exports are even produced in China and then shipped to Hong Kong for detailed final work and then shipped to the rest of the world using Hong Kong quotas (Mok, 2004). China was not a part of the Uruguay Round of negotiations where the elimination of the ATC was determined. When China became a member of the WTO it

became eligible to the benefits from this agreement. Europe and the US wanted to delay the implementation of the determination as this would benefit them through keeping restrictions on imports of Chinese textile and clothing. Before 2005 it was expected that China would increase its world market share of textile and clothing at the cost of other nations. The findings after the two first years showed that this did not happen. The global clothing and textile market grew faster, but the shift towards higher Chinese production did not occur (Martin, 2007). Increased Chinese exports of textiles can therefore be explained some by the termination of the ATC, even though this does not imply increased world market share..

The increase in the textile exports from Jiangsu and Fujian provinces are much smaller than the increase in Guangdong. Jiangsu exports have increased by more than four times over the last eight years (2000 - 2008), while Fujian exports have increased by five times in the same period. The exports in the two provinces did not experience any reduction like the textile industry in Guangdong province did during the global crisis. This might be explained if one look at what kind of clothing that is produced and exported in the different provinces. This is however not something I choose to emphasize in this thesis.

China had to make a promise to reduce tariffs on textile and clothing when it entered the WTO. By 2005 it had to reduce the tariff from 25, 4 % to 11, 7 %. One reason for that were reduced tariffs on imported raw materials. This made the production inputs much cheaper and it reduced the production costs for the enterprises. This would lead to increased market share abroad since Chinese goods became more affordable than its competitors. The entry also opened up for more foreign enterprises to establish or participate in Chinese business. And finally, China had to promise that government influence on the industry had to be reduced by making sure that SOE's were bought through regular market conditions (Mok, 2004).

When China entered the WTO there was a signed contract between China and the WTO, named the Report of the Working Party for the Accession of China to the WTO. Paragraph 242 in the report made it possible for other countries to introduce restrictions on Chinese textile imports up until the end of 2008 (WTO, 2001). This involved an opportunity for members to put restrictions on Chinese imports of textiles if the imports led to market disruptions.

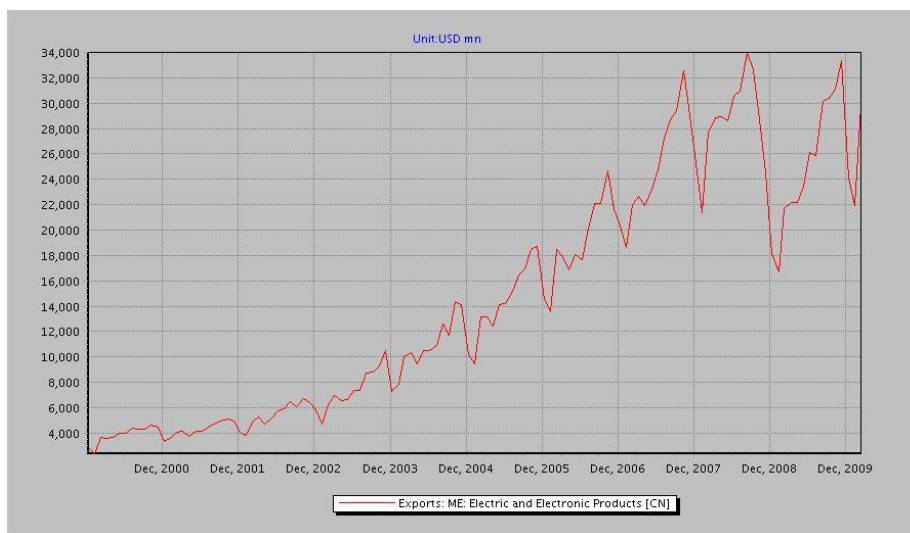
The growth in textile exports is in accordance with trade theory. Increased international market share, as a result of the membership in the WTO, puts restrictions on tariffs and quotas

among others. The result is been increased Chinese exports of textiles. As expected from the Stolper-Samuelson theorem there has been a reallocation of labor. As a result of the increased production there has been a demand for more workers. Because of the large supply of labor in China, producers have been able to expand as much as they want.

6.1.2 Chinese exports of electronics

China is known for its production and export of electronics. China has gone from being an importer of electronic goods to become an exporter. The Chinese electronics are known for being low costs and high volume products (Rodrik 2006).

Figur 12: Chinese exports of electronics

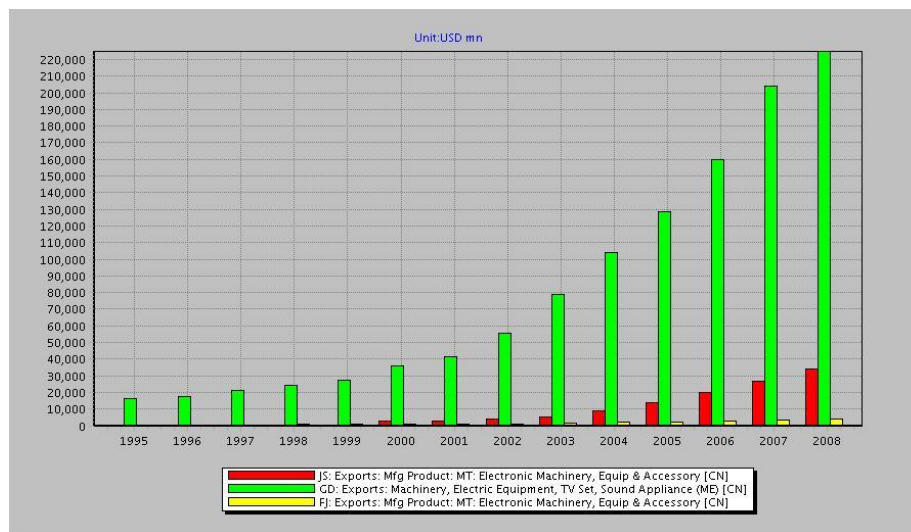


Source: CEIC

Chinese electronics exports fell about 18% in 2008. Reduced international demand due to the global crisis is the main cause behind declining numbers. Many factories had to shut down because of the crisis which led to an increase in the unemployment in China.

Seasonal fluctuations are also common in exports of electronics. We see the same trend as in textiles, a larger drop than before in January 2009 because of reduced international purchasing power. When adjusted for fluctuations we see the exports from Guangdong, Jiangsu and Fujian provinces below.

Figure 13: Exports of electronics per province



Source: CEIC

Guangdong province exports a lot of electronics. Its export of electronics were about half of total export in 2008. Guangdong represents the large labor-intensive production in China and is one of the leading provinces in China when it comes to production of electronics. It also focuses on developing new types of electronics. Figure 17 shows that there has been an increase in exports of electronics in Jiangsu and Fujian provinces as well. The electronics industry is developing very fast and Jiangsu is focusing more on high technological goods to be more competitive in the market. Exports of electronics and machinery only accounted for about 7 % of total exports from Fujian.

Trade theory told us that China should produce and export labor intensive goods. The question is therefore why it has increased its exports of high technological goods like electronics. The answer is pretty simple and can be answered by the theory. China imports most of the electronic components that are used in the production. It is therefore able to use its low skilled labor to assemble the parts and export the final good to the international market. China continues to use its comparative advantage in the production. Even though production of electronics is more sophisticated than textiles, the production is divided into several stages. By separating like that each worker can focus on one thing and this makes the production more efficient. It is taking advantage of its working force and therefore exporting a large quantum to its international trading partners. The Chinese production is therefore not a direct threat to other quality concerned producers in the international market. International traders

buy cheap Chinese electronics and are selling them with a huge profit. The Chinese exports of electronics are therefore not as sophisticated as it looks (Freund, 2008).

As an effect of the membership there has been an increase in the number of FDI's which has helped exports of electronics. Increased number of FDI's has led to more advanced and sophisticated production, as they add technology to the Chinese industry. Chinese firms learn from this and are able to make its production more sophisticated.

6.1.3 Chinese exports of steel

China is the largest exporter of steel and iron in the world, it is a leading force in the world market. Its share of world exports was 12, 1 % in 2008, a 38% increase from 2007 (WTO, 2009). The world production of steel and iron has been increasing over the last years due to many new infrastructure projects over the world.

Figure 14: Chinese exports of steel

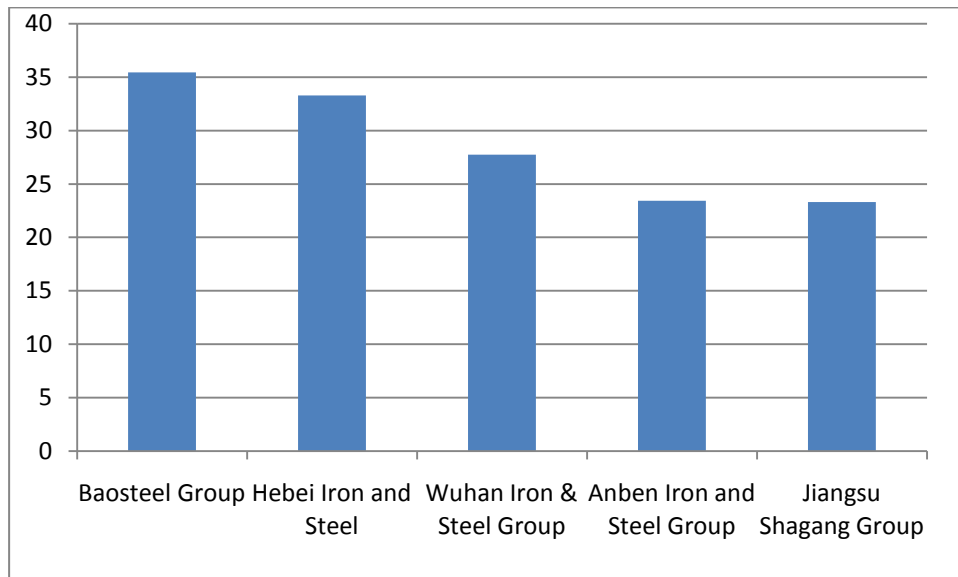


Source: CEIC

Many of the steel producing enterprises are state owned, something that is a violation of the WTO rules. The top five largest steel producers in China in 2008 are listed in the table below. The four largest steel producers are state owned; only Jiangsu Shagang Group is privately owned. The production of steel has traditionally been located in the North East, but there has been an increase in the number of steel producers in inland China during the last few years.

The underlying reason for this is that each province wants to expand its steel production. This has led to larger producers located far away ports on the east coast.

Figure 15: Top five steel producers in China (2008)⁷

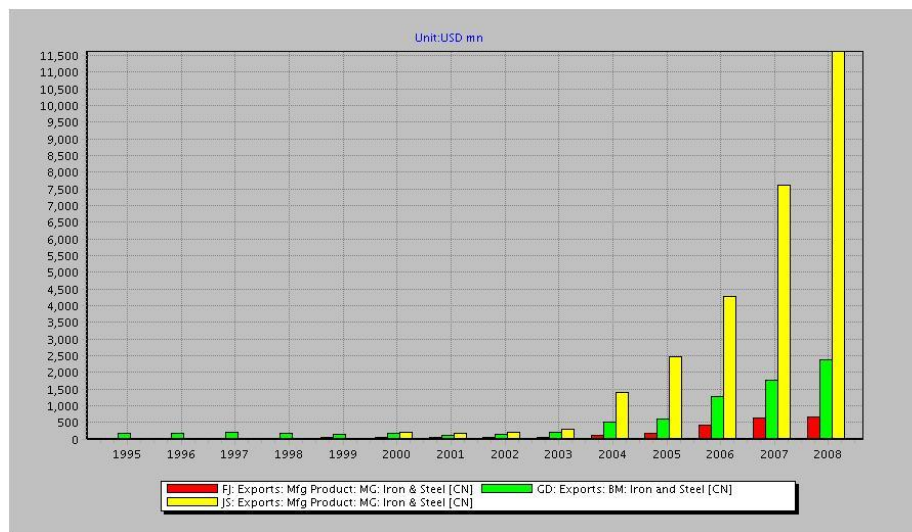


Source: Chinamining

Urbanization and development requires more investments within China and will help the domestic market in the future (N'Diaye, 2009). Steel is used in the production of many manufactured goods in addition to development of for example new buildings, roads and railways. There is need fore more investments using steel as an input in China. The population in the larger cities in China is increasing which means there is need for investments in apartment buildings, expansion of public transportation and roads. The wealth of the population is increasing, implying that households can afford more luxury goods than before, for example apartments with better heating appliances.

⁷ Numbers in million tons

Figure 16: Steel exports by provinces



Source: CEIC

Exports of steel and iron from Guangdong province has increased significantly after the entry. Between 2001 and 2008 the exports increased nearly 20 times. Steel and iron is however not a large part of Fujian exports, whereas it counted for only 1, 14 % of total exports in 2008.

According to the Agreement on Subsidies and Countervailing Measures (WTO C), subsidies are not allowed. From trade theory we know that subsidizing an export is a market violation. A Chinese export subsidy helps Chinese producers in a non fair way in the international market. The Chinese steel production is largely assisted by the government and would not have been the size it is today under true market regulations. The Chinese government is also protecting the domestic market in China by maintaining high tariff and import quotas. With little or no foreign investors⁸ in the market the Chinese steel industry has grown to become the worlds largest. The influence of the government is a visible violation to the WTO regulations and China is facing many disputes regarding its steel production.

The ongoing trade dispute between the US and China regarding the steel production is an interesting phenomena. China is being accused of using trade instruments that hurts the American steel industry directly. The US argues that the Chinese government is subsidizing the steel industry which made it possible for the industry to continue to grow while the rest of the world faced declining growth. China is accused of taking advantage of the global crisis. China made a commitment to the WTO of not influencing and supporting its SOE's, while the

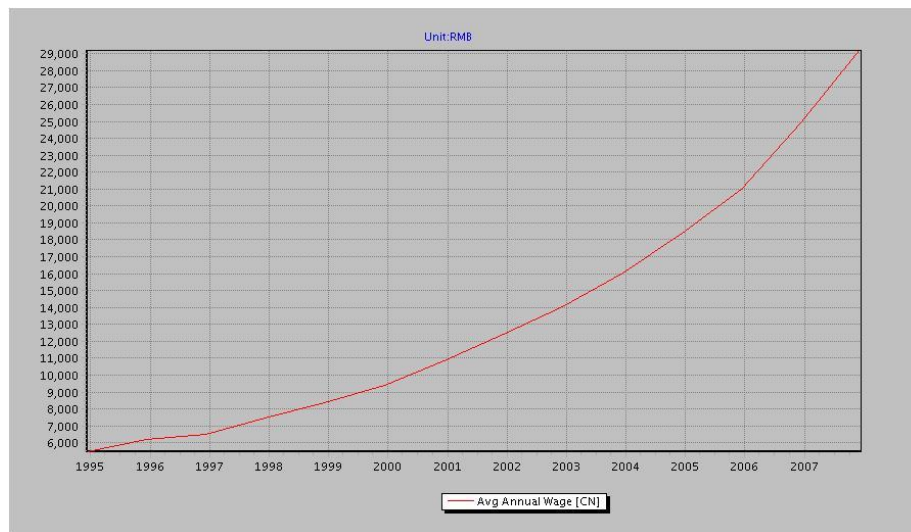
⁸ Foreign investors are not even allowed to have a controlling share in Chinese owned steel enterprises.

situation today shows that the enterprises are not working in accordance with market principles. China is in addition to that manipulating its currency making the situation even worse. No other steel producing country can compete against China when it is performing these actions (Solarz, 2009). The American steel industry is further arguing that the Chinese government is directly and indirectly helping its steel industry through offering cheap land, cash, deleting debt and providing tax benefits (Price, 2006). This is affecting Americans in many ways. First, American steel producers are losing market share and are facing declining demand for its goods. Some have to cut down on employment, some have to shut down its production entirely. Second, there is a direct effect on American households. American consumers face lower prices and are therefore able to consume more. They will then demand more cheap Chinese steel instead of steel produced in the US. However, there is an indirect negative effect. Those employed in the steel industry might lose their job because the producers have to cut down on their employment. This would lead to reduced household income and reduced American demand. China's steel exports are therefore hurting the American economy in different levels, from the individual level where people are facing reduced income to the national level where it affects the unemployment rate.

6.2 Chinese income growth and differences

China is known for its low costs in production. This is because it has a large unskilled labor force that makes it able to produce labor intensive goods at a low cost. Even though the wage level is low, we see that the average annual wage has increased over the last two decades as shown from the figure below, increasing faster from the middle of the 1990s. China is the largest country in the world in terms of population with 1, 3 billions (CIA, 2010). This section will focus on the income growth at an aggregate level, before explaining the differences between sectors, location and education.

Figure 17: Average annual wage



Source: CEIC

Income has increased continually during the last decade, but it is important to remember that China is still regarded a low-income country. Chinese workers are therefore leaving the country to seek new opportunities in other countries. The unemployment rate was about 4, 3% in September 2009, but the actual unemployment is much higher. If migrants and rural areas are included the unemployment rate jumps to 9% (CIA, 2010).

The development in annual average wage supports the expectations from the trade theory. From the Stolper Samuelson theorem one can expect wages to increase when the country opens up for foreign trade and there is an increase in the prices. This is exactly what has happened in China. With an increased demand for labor Chinese producers could hire more from the large unskilled labor force. It is important to note that there has been a rapid increase after the WTO entry. Annual wage increased with a total of 5.370 RMB from 1995 to 200, and increased with 14.062 RMB from 2001 to 2007. Chinese poverty has declined over the last two decades, mainly because of government intervention. Poverty went from 65 % to 10 % from 1981 to 2004 according to a report by the World Bank (World Bank, 2009).

6.2.1 Wages in agriculture and manufacturing

A comparison between the agriculture and manufacturing sectors in China reveals major income inequalities. Wages in manufacturing were almost twice as high as wages in agriculture in 2008.

Figure 18: Wage differences between manufacturing and agricultural sectors



Source: CEIC

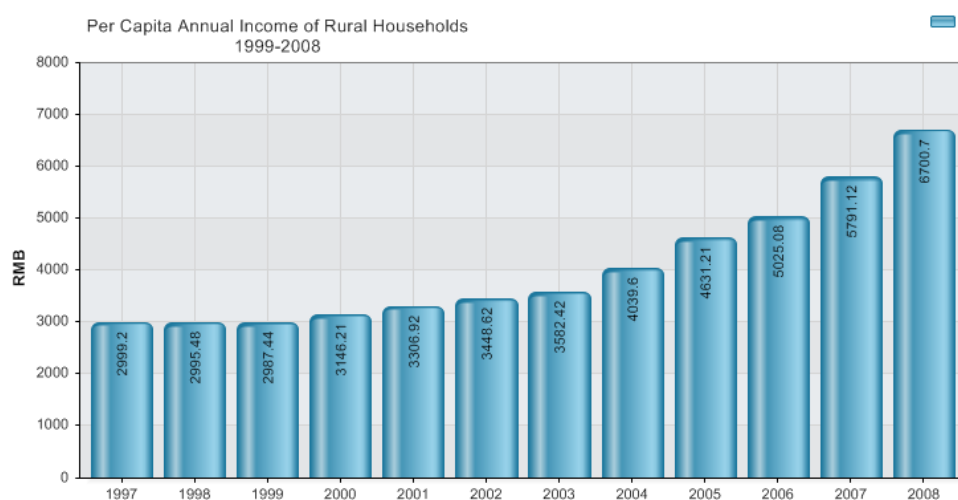
The average wage in manufacturing has more than tripled from 1996 to 2007, while the agricultural average wage has increased less in the same period of time. The increase in the wage level can be supported by the expectations from trade theory. The Stolper-Samuelson theorem told us that opening up for foreign trade leads to changes in factor prices. Increased prices imply that production is more affordable and producers want to expand. This raises a need for more workers. With its large unskilled labor force there has not been a problem for China to meet the demand for more workers. China has experienced a growth in the exports of manufactured goods. This is one explanation behind the increasing inequalities between the two sectors. Another explanation can be the location. As previously mentioned, the largest manufacturing enterprises are located on the east coast of China where the wage level is relatively higher than inner China. Agricultural goods are mostly produced in the poorer areas of China, where the ability to perform wage negotiations are less than on the east coast. The industrialization on the east coast has led to a larger need for land. The agricultural sector has therefore been pushed away from eastern parts of China, towards more undeveloped areas in the west. It has not faced the same level of trade liberalization as the manufacturing sector, and most of the production is still government regulated.

In accordance with trade theory there has been a faster development and rapid growth in the manufacturing than in agriculture. The income inequalities provide assumptions of income inequality between rural and urban areas. As manufacturing has become a major part in Chinese international trade the migration from rural to urban areas has increased. This leads to an expectation of faster income growth in urban areas.

6.2.2 Income differences between rural and urban areas

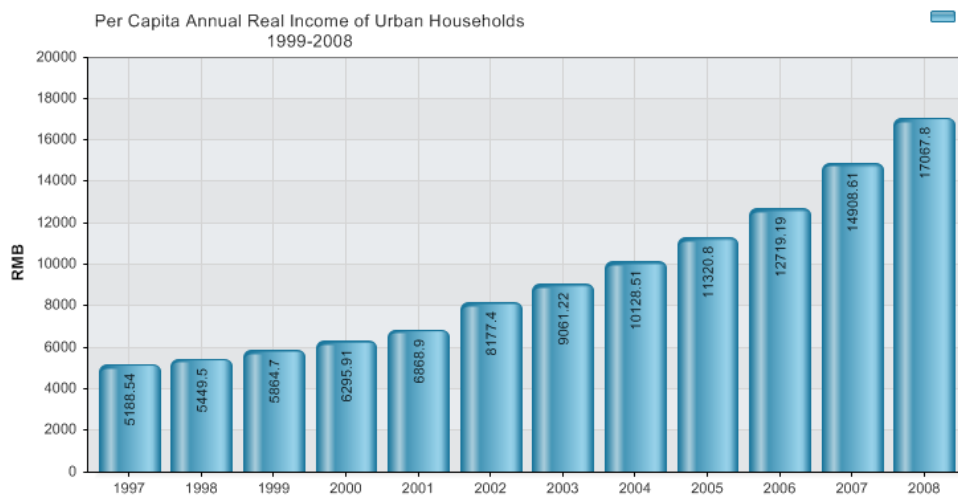
Even though the income level in China is increasing there is still a huge difference between rural and urban areas. The income level is increasing in both areas, but as the graphs below show, rural areas are lagging behind urban areas. There is evidence that the economic growth China has been through the last years has led to a larger inequality among rural and urban areas.

Figure 19: Per capita income rural households



Source: China Knowledge

Figure 20: Per capita income urban households

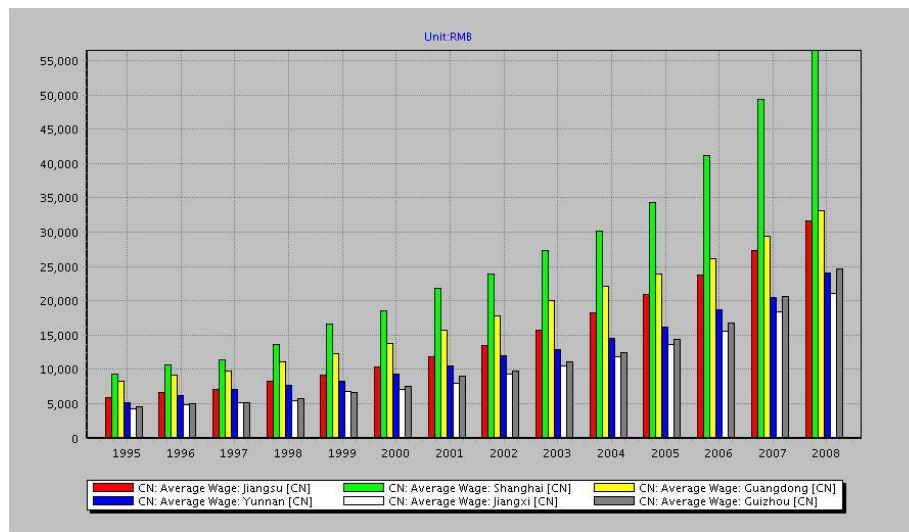


Source: China Knowledge

There are major differences between rural and urban areas when it comes to wage. The average annual wage in urban areas is much higher than in rural areas. According to the China Knowledge database, the rural per capita income was only 39 % of urban per capita income in 2008. Per capita income in rural households has doubled between 1997 and 2008, while per capita income in urban households has more than tripled.

It is hard to find significant data since many of the rural workers do not clarify how much their average income is. The government in China is also known for manipulating statistics which leads to difficulties in analyzing the wage level. There is also a huge difference in wages among different types of ownership. SOE's and foreign owned enterprises both tend to have higher wages than the smaller and local enterprises. There exists a minimum wage, but there are many receiving less than the minimum. It is common that employers pay for housing and food. The employees then both work and live together, usually in small apartments with lower standards. However, the largest exporting province in China, eastern Jiangsu, decided to increase its monthly average wage level by 13% in the beginning of 2010 (Financial Times, 2010).

Figure 21: Income differences between provinces



Source: CEIC

This figure shows the income differences among three of the wealthiest and three of the poorest provinces in China. As one can see, Shanghai is a unique case. Average annual wage in Shanghai is almost three times the wage level in Jiangxi, which is one of the poorest provinces located in central China. Guangdong and Jiangsu are two large exporting provinces with about the same wage level. The difference among provinces is clear and confirms the statement about increasing income differences within China.

There has been a large migration from rural to urban areas as the manufactured industry has grown in China. Better job opportunity in larger cities, where the production is located, has led to migration from rural areas to the east coast. Guangdong and Jiangsu are obtaining a much higher average annual wage than provinces located in central China. The wage level is higher in Shanghai than the other provinces. Shanghai is different in many ways and is more western than rest of China. Higher labor supply in urban areas has made producers expand and produce more than before. With a high labor force producers are able to keep wages down and China has been able to maintain its comparative advantage, the low labor costs. Because of the Hukou⁹ system migrants tend to work in urban areas even though they are registered in rural areas. This is because it is hard to move and switch residence permit between rural and urban areas. But even though they live in urban areas they do not have the same benefits as urban citizens because of their residence permit. However, it has been a change in the pattern

⁹ The Hukou system is that every citizen must obtain a residence permit where he/she lives which provides certain rights like land in rural areas and social services in urban areas.

over the last few years. More migrants tend to settle down permanently in urban areas with their families, but because of the hukou they still do not obtain some of the privileges (World Bank, 2009). This indicates that the inequality among those who live in urban areas should be large as well. And this is exactly the case in China today. Migrants do not have the same health care system and can not afford school for their children. As discussed above we see that urbanization has increased over the last couple of decades. The urban population has increased from only 31, 4 % in 1995 to 36, 72 % in 2001 and further to 43, 1 % in 2008¹⁰. There has been an increase of more than 10 % during the last 13 years.

These findings support the expectations from trade theory. The large exporting provinces have increased their wage level more than those provinces that export less. This can be seen in accordance with the development of the export sectors. As exports of manufacturing goods have increased there has been an increase in the wages in the sector. Because of the location of the exporting producers, the assumption of income inequality between provinces in China came through.

¹⁰ Source: World Bank

7 Fair play in international trade?

An interesting question to analyze is whether or not China is following all the rules and requirements set by the WTO or if it is playing by its own rules maximizing its own welfare instead of having international trade at its best interest? One of the first things the Chinese government had to focus on after the entry was price dumping Chinese enterprises were performing in the international market. This led to many Chinese enterprises being shut off at the world market because of the many ongoing anti-dumping disputes where China has been involved (Shuming Bao, 2006). As a member of the WTO countries have the right to impose anti-dumping tariffs on imported goods if the goods are relatively cheaper than they are at the exporting country's domestic market. In those disputes where China has been judged guilty in dumping, Chinese producers have sold goods cheaper in for example the US than it does at the Chinese domestic market. The US has therefore anti-dumping tariffs on several Chinese goods. China argues that the US is using this as a method of excluding Chinese goods at the American market. Who is right and who is wrong? This is an impossible question to answer within the limits of this thesis, but I will briefly look at two ways China might be manipulating its foreign trade.

7.1 Is China taking advantage of its status as a developing country?

Countries enter the WTO on different criteria's. China entered the WTO as a developing nation and many countries are now arguing that China is taking advantage of its status. Around two thirds of the member countries have status as developing, but none of them are close to China measured in size or share of world trade. Developing countries get benefits and rights that developed countries do not get. Developed countries can therefore treat developing better than other countries that are already developed. China wants to maintain its status as a developing country and the incentives must be to gain special benefits. Then China can benefit from special treatment from other countries and not being obliged to give the same treatment in return. The status also protects the developing nations' interests when implementing the rules and requirements. In addition there is also given extra help to developing than developed countries. The secretary of the WTO has own legal advisors

working for the developing countries. Another fact is that developing countries get better time to fulfill all the commitments the WTO requires. While already developed countries must follow the rules right away we see that developing countries can do this over time (WTO A). Since China obtains its status as a developing economy we see that it has rights and benefits through the GSP. The reduced and non existing tariffs have helped Chinese exports in the EU, Norway and those other countries mentioned in section 5.1. Norway is one of the countries that provided China with GSP even before China became a member and therefore helped Chinese exports even before China became a member.

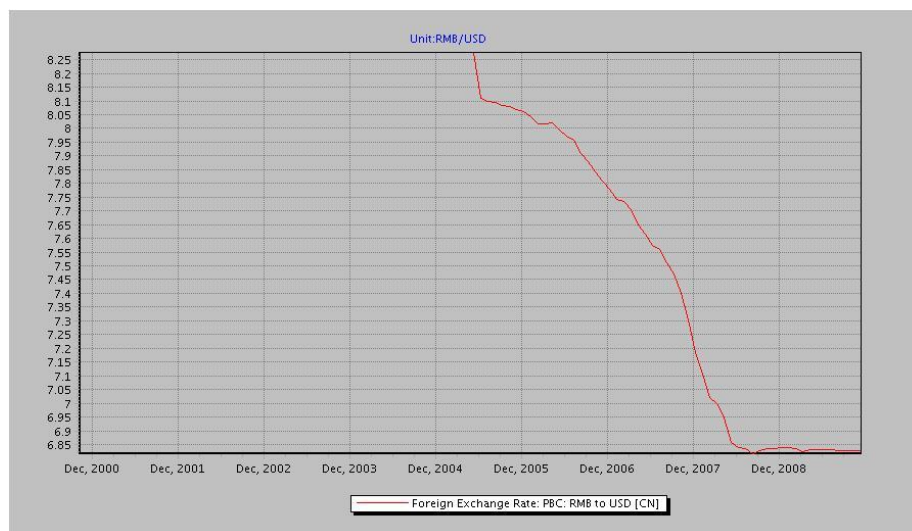
A developing country is characterized as a country with low living standards. The living standards in China have been increasing significantly over the past years, but it is no doubt that it still has a long way ahead. The private consumption has increased by 9, 6% per annum between 2003 and 2008, but compared to other developed OECD-countries we see that China is still lagging (OECD, 2010). There are also huge differences between rural and urban areas. While citizens in urban areas can afford more electrical appliances like heaters, air conditioners and others, there are few appliances found in rural homes. With higher private income more and more are able to buy cars and other luxury goods, but again there is a great difference within China. This has led to an increasing environmental problem in China and is one of the challenges China is facing today and in the future. The economy has been growing very fast, but the development has been different among the provinces. There are still large regional differences when it comes to income and living standards, in addition to a non-democratic political system, which is a trait of a developing economy.

7.2 Is China keeping the RMB undervalued?

There are many western countries arguing that China is keeping its currency way undervalued in the international market today. The US is trying to convince the Chinese government that they have to adjust the exchange rate, and the US gets support from many European countries. The situation today is that China is being accused of its undervaluation is the reason for the Chinese trade surplus over the last few years which has led to a maintained high Chinese export and decreasing Western export because of the global crisis. The Chinese government, on the other hand, is not willing to appreciate its currency in fear of hurting its exports and reducing its economic growth. China is afraid that the appreciation will lead to less interest in

Chinese goods and that China will lose its competitiveness. It is therefore most likely that China is using its undervalued currency as an export subsidy in trading internationally today. As all the subsidies and tariffs had to be removed from Chinese sectors and industries, China has lost some of its instruments in promoting its own goods (Rodrik, Making room for China in the World economy, 2009).

Figure 22: Foreign exchange rate: RMB to USD



Source: CEIC

Western countries argue that China should stimulate domestic demand instead of relying too much in foreign demand. Rodrik (2009) suggests that China should let the RMB appreciate so that the trade surplus is reduced. At the same time he claims that China should support modern, non-traditional tradables and subsidize them directly instead of through the exchange rate. There is need for increased domestic demand, so that China do not maintain to dependent of international demand.

It is interesting to see that even though China wanted to become a member and therefore had to let go of subsidies and tariffs, they chose to indirectly subsidize its exports through the exchange rate. By doing this it promotes itself and protects its own exports on the behalf of many other exporting countries.

7.3 Chinese imports

China might not play according to all the rules set by the WTO, but its action does have a positive effect in some cases. Even though there is more focus on Chinese exports than imports, it is important to remember the latter. Chinese exports incredible growth is highlighted in the media every day around the world and many economists are fascinated by the high economic growth rate in China. Just like the exports we see that Chinese imports have increased as well. As the report from the National Institute Economic Review forecasts, China will most likely pass Germany as the world's largest importer (Dawn Holland, 2010).

Figure 23: Chinese imports



Source: CEIC

There are more similar traits between Chinese exports and imports. As the figure shows us China experienced the same drop in imports during the global crisis, just like the exports. In contrast to the rest of the world China reacted to the ongoing crisis fast. The government presented its stimuli packages early and the rest of the world could see a faster reaction to the crisis in China than their own countries. The stimuli packages have led to increased imports for China. By doing that China has helped other countries, mostly other Asian economies, which have been able to export more than they would have if it was not for the quick response by Chinese government.

During the last 15 years the Chinese imports from other Asian countries have increased significantly. The increase in imports from the EU, Europe and North America (Canada and the US) is much smaller. The distance between the countries can explain why China imports

more from its neighbors than the rest of the world. Since the Asian countries are located closer to each other than the rest of the world it is faster and easier to ship goods between the countries. At the same time most of the other Asian countries also have the comparative advantage of low production costs.

These findings support the expectations made in section 5.1. There has been an increase in Chinese imports after China became a member. One of the main factors behind this is the reduction in Chinese average tariffs on imported goods from 15,6% to 9,9%. This has increased Chinese imports of international goods. We therefore see that becoming a member of the WTO has an effect on Chinese imports in addition to the exports. China faced its first trade deficit in March 2010, the first since 2004. This implies that domestic demand in China has been increasing (BCA Research, 2010). Chinese imports have increased more than Chinese exports. As previously stated most of the Chinese imports come from other Asian countries. China is therefore helping others, but it does not get as much help in return as demand for Chinese goods have increased less than Chinese demand for international goods. However, are the numbers reported by the government trustworthy? Chinese statistics reported by the government are known for being manipulated. Given that this is true, the trade deficit might be an argument for the government to not appreciate the RMB. The government might use this as a way of telling its trading partners, especially the US which is demanding a soon appreciation, that its economic growth and high export rate are not a result of a currency manipulation. This is something that is hard to claim since it is almost impossible to prove that the statistics are manipulated. The US has been pushing China hard lately, trying to rush an appreciation. It therefore might be perfect timing for the Chinese government to post a trade deficit as a defensive act to not appreciate the RMB.

8 Conclusion

The main purpose of this thesis has been to show the effect of Chinese membership in the WTO on its exports and income level. As predicted from trade theory there has been an increase in aggregated levels of both.

The entry of China into the WTO in 2001 represented a major shift in Chinese foreign trade and China has become one of the major players in international trade. Finding a direct effect of the entry is almost impossible, but thus survey has shown that the increase in both exports and income has increased more rapidly during the first decade as a member.

There has been an increase in Chinese exports of both textiles and electronics. In both industries China is able to use its comparative advantage, its cheap labor. Even though there has been a change in production from light manufactured goods towards more sophisticated technological goods, China is still using its advantage. The production of electronics is divided into several stages where workers specialize in each stage. With a large unskilled labor force it has been possible for Chinese producers to expand its production. The membership in the WTO required China's trading partners to remove tariffs on Chinese goods. The result of this is in accordance with the expectations from trade theory. It has led to increased exports of Chinese goods and allowed China to exploit its comparative advantage. At the same time we see that the cost of labor is even cheaper in Bangladesh, India, Cambodia and Indonesia (Textile and Clothing Trade Information, 2008). Because of that there has been a trend lately that international companies have transferred their production from China to these other low cost countries.

Recent news for Chinese exports is that the average tariffs on Chinese goods by ASEAN¹¹ states will fall from 12, 8% to 0, 6%. This will increase Chinese exports to other Asian countries further. Reduction of tariffs and elimination of quotas are two regulations from the WTO that has made Chinese exports grow more rapid than before it became a member and one can therefore expect a further increase in the future.

The aggregated level of income has also experienced a more rapid growth after the WTO entry. According to theory this is as expected. However, this does not show the clear picture of the welfare in China. Because of an export structure that has been through a change during

¹¹The Association of Southeast Asian Nations

the last years, there has been an increase in the inequality in wages between manufacturing and agricultural sectors. This has led to larger regional income differences in China as a large population has migrated from rural to urban areas where most of Chinese exports are produced. The Chinese government made an announcement in the beginning of 2010 that it would increase its focus on income distribution in China to reduce the inequalities among industries and regions.

China has gained from membership in the WTO on the aggregate level with increased exports and an incredible economic growth rate. But as this thesis has shown, not everybody is gaining at the individual level. A future challenge for China is therefore to improve the reallocation of the gains from international trade. The Chinese government needs to focus on the income inequality and implement measures to reduce the inequality.

The Chinese economy is an interesting field of study. This thesis has shed light on exports and income, but there are many other interesting topics to analyze when it comes to China and its interaction with the rest of the world. The undervaluation of the RMB, Chinese imports and demography are all current problems that are interesting. However, these are problems I keep unanswered and leave for my fellow researchers to deepen into.

Bibliography

- BCA Research. (2010). *Weekly Bulletin: The China Debate*. Montreal: Investment strategy and recommendations for China, Hong Kong and Taiwan.
- Blancher, T. R. (2004). China: International Trade and WTO Accession. *IMF Working paper*.
- Bown, C. P. (2007). *China's WTO entry: Antidumping, Safeguards and Dispute Settlement*. Cambridge: National Bureau of Economic Research.
- CEIC. (2010). *CEIC Data*. Retrieved from A product of ISI Emerging Markets: <http://www.ceicdata.com/>
- China Knowledge. (2010). *Chine Knowledge online*. Retrieved from China Databank: <http://www.chinaknowledge.com/Databank/>
- Chinamining.org. (2010). Retrieved from <http://www.chinamining.org/>
- CIA. (2010, March 18th). Retrieved March 31st, 2010, from Central Intelligence Agency: The World Fact Book - China: <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>
- Dawn Holland, R. B. (2010). *China and world trade*. National Institute Economic Review.
- European Commission Trade 2010. (n.d.). *Development: Generalised System of Preferences (GSP)*. Retrieved 06 05, 2010, from <http://ec.europa.eu/trade/wider-agenda/development/generalised-system-of-preferences/>
- Feenstra, R. C. (2004). *Advanced International Trade. Theory and evidence*. Princetown, New Jersey: Princertown Univeristy Press, 31.
- Feng, H. (2006). The Politics of China's Accession to the World Trade Organization. The dragon goes global. *Routledge, London and New York* , 33.
- Financial Times. (2010, Februart 7th). *Chinese province raises wages 13%*. Retrieved April 13th, 2010, from China: Economy and Trade: <http://www.ft.com/cms/s/0/fa86afe4-1418-11df-8847-00144feab49a.html>
- Finansdepartementet 2010. (n.d.). *Skatte-, Avgifts- og tollvedtak*. Retrieved 06 05, 2010, from <http://www.regjeringen.no/nb/dep/fin/dok/regpubl/prop/2009-2010/prop-1-s-2009-2010-2/4.html?id=580798>
- Freund, M. A. (2008). *An anatomy of China's export growth*. New York: Federal Bank of New York and the World Bank.

- Hertel, T. W. (2000). *China's Accession to the WTO: Timing is everything*. West Lafayette: Center for Global Trade Analysis, Purdue University.
- Hung-Gay Fung, C. P. (2006). *China and the Challenge of Economic Globalization. The impact of WTO membership*. Armonk, New York: M. E. Sharpe, Inc.
- IMF. (2010, March 22nd). Retrieved April 1st, 2010, from International Monetary Fund: People's Republic of China and the IMF:
<http://www.imf.org/external/country/CHN/index.htm>
- IMF. (2009). *World Economic Outlook*. Washington: International Monetary Fund.
- Krugman, P. and M. Obstfeld. (2009). *International Economics. Theory and Policy. Eight edition*. Boston: Pearson Education, Addison Wesley, 28-30,32,54,56-57,72-73,75,135,183,185-187,192,195.
- Maddison, A. (2007). *Chinese Economic Performance in the Long Run*. OECD Publishing.
- Martin, M. F. (2007). *U.S. Clothing and Textile Trade With China and the World: Trends Since the End of Quotas*. CSR report for Congress.
- Mok, G. Y. (2004). Does WTO accession matter for the Chinese textile and clothing industry? *Cambridge Journal of Economics* , 937-954.
- Morrison, W. M. (2009). *China - U.S. Trade Issues*. Washington: Congressional Research Service.
- Naughton, B. (2007). *The Chinese Economy: Transitions and Growth* . Cambridge: MIT Press.
- N'Diaye, K. G. (2009). *Is China's Export-Oriented Growth Sustainable?* . IMF Working paper.
- OECD. (2010). *Economic Surveys: China 2010*. Source OECD.
- Peoples Republic of China. (2006). *Trade Policy Review report by the PRC, WT/TPR/G/161*. Peoples Republic of China.
- Price, A. H. (2006). *The China syndrome: How subsidies and government intervention created the world's largest steel industry*. Washington: Wiley Rein & Fielding LLP.
- Pugel, T. (2007). *International Economics*. New York: McGraw Hill, 32,35,68,72,111-112.
- Rawski, L. B. (2008). *China's great economic transformation* . Cambridge, New York: Cambridge University Press.
- Rodrik, D. (2009). *Making room for China in the World economy*. Cambridge: Harvard Kennedy School.

Rodrik, D. (2006). *What's so special about China's exports?* London: Centre for Economic Policy Research.

Shuming Bao, S. L. (2006). *The Chinese Economy After WTO Accession*. Aldershot, Hampshire: Ashgate Publishing Limited.

Solarz, B. (2009). *Public comments on China's compliance with commitments made in connection with its accession to the World Trade Organization*. Washington: American Iron and Steel Institute.

Textile and Clothing Trade Information. (2008, May 23rd). *Apparel Manufacturing Labor Costs in 2008*. Retrieved April 13th, 2010, from EmergingTextiles.com:
<http://www.emergingtextiles.com/?q=art&s=080523-apparel-labor-cost&r=free>

UNCTAD 2010. (n.d.). *United Nations Conference on Trade and Development*. Retrieved 06 05, 2010, from About GSP:
<http://www.unctad.org/Templates/Page.asp?intItemID=2309&lang=1>

World Bank. (2009). *From poor areas to poor people: China's evolving poverty reduction agenda. An assessment of poverty and inequality in China*. Poverty Reduction and Economic Management Department. East Asia and Pacific Region.

WTO A. (n.d.). *World Trade Organization 2010*. Retrieved April 6th, 2010, from Understanding the WTO: Basics. Principles of the trading system:
http://www.wto.org/english/thewto_e/whatis_e/tif_e/tif_e.htm

WTO B. (n.d.). *World Trade Organization 2010*. Retrieved March 23rd, 2010, from WTO Member Information: http://www.wto.org/english/thewto_e/countries_e/china_e.htm

WTO C. (n.d.). *World Trade Organization 2010*. Retrieved April 27th, 2010, from Subsidies and countervailing measures: www.wto.org/english/docs_e/legal_e/24-scm.pdf

WTO. (n.d.). *Developing countries in WTO dispute settlement*. Retrieved February 26th, 2010, from World Trade Organization:
http://www.wto.org/english/tratop_e/dispu_e/dispu_settlement_cbt_e/c11s1p1_e.htm

WTO. (2009). *International Trade Statistics 2009*. Geneva: WTO Publications.

WTO. (2001). *The Report of the Working Party for the Accession of China to the WTO*. WTO Protocols of Accession.